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THE

FLORIST AND POMOLOGIST:

A PICTORIAL MONTHLY MAGAZINE

OF

FLOWERS, FRUITS, AND GENERAL HORTICULTURE,

CONDUCTED

BY ROBERT HOGG, LL.D., F.L.S.,

AND

JOHN SPENCER, F.G.S.

ASSISTED BY MR. THOMAS MOORE, F.L.S.,

AND NUMEROUS ABLE CONTRIBUTORS.

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TO

HER MOST GRACIOUS MAJESTY

THE QUEEN,

AS THE MOST EXALTED PATRONESS OF HORTICULTURE,

THIS VOLUME

OF

THE FLORIST AND POMOLOGIST

IS MOST RESPECTFULLY DEDICATED

BY HER MAJESTY'S HUMBLE AND DEVOTED SUBJECTS,

THE EDITORS.

13052

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THE

FLORIST AND POMOLOGIST.

ADDRESS.

IN our last Number we bade farewell to our readers on completing our Fourteenth Volume, and now we meet them in a somewhat new form, with higher aspirations and greater obligations to fulfil. For fourteen years our best efforts have been directed to the progress and development of Gardening, and throughout that period have we assiduously collected and disseminated through our pages the facts, opinions, and suggestions of all of the best practical writers of the day; nor while elucidating the art of Cultivation have we been insensible to the equally important improvement effected in the races of Plants. Indeed, we may go further, and say that ever since the introduction of our work to the Garden Literature of the times we can lay claim to having occupied the very first position in this respect; as a proof of which the successful results which have been obtained though the skill of modern hybridists, have first been made known to the public either through the pencils of our artists or the pens of our contributors; and it is with pride that we are able to refer to the names of Beck, Hoyle, Foster, Fellowes, Sainsbury, Turner, Maclean, Puxley, Ingram, Keynes, Dodds, Rawlings, Strong, Henderson, Banks, Storey, Standish, and others, whose respective productions have, from time to time, been first figured or described in our pages. Sad are we to relate that of the above great ones in the Floral world two have ceased from their labours amongst us, and now rest in peace; but their names will long survive, the brief span of existence being perpetuated in many a lovely flower, at once reminding us of their skill, and affording us a grateful souvenir of happy hours spent in their society. The rest are with us, and we anticipate to be furnished with numerous new and fine productions, the result of their labours in this branch of Experimental Gardening.

With the already great advantages which belong to our position as the organ of the Floricultural world, we have now decided in admitting to an equal share of our favours the claims of Pomology as an associate with the sister art of Floriculture. We need scarcely add that it is our wish and resolve to maintain the FLORIST AND POMOLOGIST at the head of its class, in this department of Garden Literature: to effect this our object, the promises of support we have received, as explained by our list of contributors given elsewhere, will afford to our readers the most unqualified guarantee of the means for success which are at our disposal.

SUNSET VARIEGATED PELARGONIUM.

WITH AN ILLUSTRATION.

THOSE who have watched the gradual improvement which has taken place in the varieties of the Variegated Pelargonium, both in respect to their flowers and their foliage, and have noticed in what the improvements brought about in respect to the latter have consisted, will not be surprised to find that at length there has been obtained a well-marked GOLDEN TRICOLOR-LEAVED section—a group which we think those who glance at the accompanying figure will at once admit already affords us an acquisition of extreme beauty; such, indeed, as may be expected to win a high position in popular favour. Such a position we doubt not will at once be accorded to the new variety called SUNSET, which Mr. Fitch has so admirably portrayed, and which we have the pleasure of presenting to our readers, as an earnest of the efforts we are prepared to make to win for ourselves a similar position. For some time past there has been known in cultivation a group of varieties, of which *Countess of Warwick* and *Fontainbleau* were some of the earlier types, in which combined with a white or creamy marginal variegation, the leaves are marked by a zone of rose-crimson or flame-red, more or less intense. The varieties of this group, which we may call the SILVER TRICOLOR-LEAVED, have been now very much improved, and at the present time we have in such kinds as the *Queen's Favourite*, the *Rainbow* and *Picturatum*, plants of very great beauty, possessing well-marked features of excellence both in their leaves and blossoms.

The Golden Tricolor-leaved group now illustrated has also made a decided and very rapid advance in quality. Some of the earlier forms themselves are yet by no means common, such as *Golden Tom Thumb*, *Golden Cerise Unique*, and *Golden Vase*, though they have the red zone sufficiently well marked on their younger leaves to render them attractive objects in the garden, and yet greatly inferior to the more recent *Mrs. Pollock*, as that is again surpassed in brilliancy by the present novelty. These two latter, however, *Sunset* and *Mrs. Pollock*, are of nearly equal merit, the markings being similar in character in both, but the zone being rather lighter and brighter coloured in the one we now figure. We owe the opportunity of introducing it to our readers to the Messrs. E. G. Henderson & Son, of the Wellington Road Nursery, St. John's Wood, and we believe it is entirely in their hands. We saw it growing with them in the autumn of 1861, both in the open air and in cold airy frames, and can testify that the rich colouring of our figure by no means exaggerates the beauty of the plant which is of course prized mainly for its brilliant leaves. Though this tricoloured race of Pelargoniums has been spoken against as not suited for out-door cultivation, and as losing the brilliancy of the markings as the leaves get matured in size—objections which may apply to some few of the more delicate silver-edged sorts—we can state from our own observation respecting *Sunset* and *Mrs. Pollock*, which was growing beside it, that in both the situations referred to above, where of course the plants were exposed to free light and air, the bright colouring of the leaves was not evanescent. Indeed, from the healthy and comparatively free growth of the plants, and their branching habit, a constant development of foliage is going on, so that they have always an ample garnature of the highly-coloured leaves—ample to justify us in strongly recommending them for all decorative uses, either in the flower garden or in the greenhouse. These golden-edged sorts have a much more healthy-looking appearance and habit than most of the silver-edged varieties.

Reverting to the immediate subject before us, our memorandum made last September ran thus:—Habit free, vigorous, dwarfish. Leaves nearly three inches across, rather undulated, but not cupped, smooth and rather glossy,



Sunset, Variegated Pelargonium.

Day & Son, Litho to the Queen.

more deeply lobed than *Mrs. Pollock*; the lobes irregularly crenate-toothed; the centre light greyish-green breaking out towards the edge, but generally leaving a margin of clear pale chrome yellow half an inch broad, the inner edge of the zone about corresponding with the broader yellow parts; the zone itself of a bright rosy salmon, the parts overlying the yellow appearing therefore as a light bright red, deepened here and there where crossing the extended points of green. Flowers light rosy or cerise scarlet, in moderate-sized trusses, and of fair form.

We may just mention, that as a rule, Variegated Pelargoniums do not require pots of so large a size as the green-leaved varieties, and they generally prefer a lighter soil: hence it is that some of them do not succeed well when planted out in ordinary garden soil, especially when rich and at all close in texture. A light porous earth containing peat seems most congenial to them.

The following varieties of the Tricolor group may be especially recommended: *Golden Tricolor-leaved*: Sunset, *Mrs. Pollock*. *Silver Tricolor-leaved*: the Rainbow, the Queen's Favourite, Picturatum, Hotel de Cluny, Glowworm, and Burning Bush.

THE TREBBIANO GRAPE.

As this Grape has been successfully shown this season at some of the principal fruit exhibitions in London, perhaps a few hints respecting its culture and history may be of interest to the readers of the *FLORIST AND POMOLOGIST*. When I first came to Welbeck the late Mr. Mearns had introduced it there from some garden in Wales; and, from his having grown it at Shobden Court, he pointed it out to me as a desirable variety of White Grape for keeping late. At first I thought it only the Syrian, but after having grown it now for a great many years, I find it perfectly distinct, and one of the most valuable White Grapes grown for keeping late. It is a Grape that does best with stove heat, like the Muscat of Alexandria, and if grown with it in the same house it will keep the succession of White Grapes up till the last. The Trebbiano forms a noble and well-shouldered bunch, the berries being large and setting well, and is constitutionally a strong grower, making a famous stock for grafting others on. The Muscat of Alexandria can seldom be kept in good condition after the end of January; but the Trebbiano, under the same circumstances, will keep quite plump till the end of March. Like the Muscat, it keeps all the better for being well ripened in August or September; and shows a beautiful amber tint in the berries when ripened early. With the Black Barbarossa, Trebbiano, West's St. Peter's, and Lady Downes' Seedling, there is now no difficulty in having good late Grapes till the early Grapes are ripe, and so having a succession all the year round. The unnatural system of forcing early Grapes, so as to have them ripe in the winter months—say in January and February—can only be carried out for a year or two in the same house through the Vines getting so weak from the want of a proper winter rest. In March, April, and May the case is different; for good early Grapes can be ripened in pots or tubs, or in vineries where the roots are protected, and the wood will not suffer from too early forcing.

I find that the old White Muscadine is an excellent Grape for keeping late; for though it gets shrivelled a little in February and March, it is quite fit for the dessert, and has a delicious flavour peculiar to itself.

I have crossed the Trebbiano with several of our high-flavoured White Grapes, such as the Chasselas Musqué and White Frontignan, and have some promising seedlings which I expect to fruit next year. Seedling Grapes must

now be very good indeed to beat the fine varieties already in cultivation ; but my object in crossing with the Trebbiano is to try and get good flavour of Grapes combined with good keeping qualities.

Welbeck Gardens.

WILLIAM TILLERY.

THE CHRYSANTHEMUM.

THAT the Chrysanthemum is rapidly making headway among the floricultural public there cannot be any doubt ; and deservedly so, for I know of no flower at this time of the year that can urge more powerful claims upon our attention, or more amply repay us for that attention, than this gay autumnal beauty. The great variety of form and colour, the long period it remains in bloom, its adaptability either for the flower garden, conservatory, greenhouse, or cottage window, make it alike desirable to every class of the floricultural community.

The Royal Horticultural Society will have no reason to regret having taken this flower under its fostering wing. The recent Exhibition must be considered without doubt a decided success ; and not the least gratifying is the fact that we have, among the exhibitions this year, some fresh blooms, from which I think we may fairly look forward to some very decided advance.

Taking a retrospective view of the Chrysanthemum for the past ten years, I am decidedly of opinion there has been very little, if any, improvement either in the cut flowers or specimen plants. This year, however, the collection that took the first prize in the amateurs' class of six plants gave unmistakable evidence of a step in the right direction, which all other exhibitors will do well to follow. "Defiance," in this collection, was the nearest approach to perfection that I have yet seen.

The exhibitors of Pompon varieties are in my opinion altogether abroad in their mode of training. I contend that the spiral or pyramidal plants, as well as those immense table-top specimens, are alike objectionable ; and I have no hesitation in stating that any exhibitor coming into the field with a half dozen nice compact plants, grown in the style, say, of Turner's Fancy Pelargoniums, (I know of no better model for a Pompon), will assuredly take precedence, to the perhaps no small surprise of our present exhibitors.

The exhibition of standards, whether Pompons or large-flowering varieties, might I think be dispensed with ; they were by no means a desirable feature.

The cut flowers were very effective, as they always are when staged in long rows of three flowers deep, and certainly are in no way inferior to the Dahlia. Dark flowers of good quality were scarce, and in this particular the Exhibition at the Garden was by no means an exception. Incurved flowers are evidently the favourites, and I think very properly so ; for although, in some instances, we lose brightness of colour by having the under instead of the upper part of the petal exposed to view, yet upon the other hand their form is more beautiful, and, without doubt, last in perfection as long again as reflexed flowers, and when grown for decorative purposes this is of some importance.

Although reflexed flowers and incurved flowers are apparently so distinct, I quite think it possible to produce nearly all the varieties incurved, excepting only those short or shell-petalled kinds. Take, for instance, Annie Salter, the most perfect type of a reflexed flower. This can be made to incurve as perfectly as a Plutus, and this is not unfrequently attributed to dressing ; but I am of opinion that no amount of dressing could produce those large incurved flowers we now see exhibited, although the disappointed exhibitor too frequently

attributes to dressing what only and entirely belongs to superior cultivation. In the cultivation of plants for the production of fine blooms, the most important element is to select the right bud at the right time; herein consists the whole secret of producing the fine blooms we now see exhibited.

The following are the best of the new ones as far as I have seen, for the coming year;—

Duchess of Wellington (Salter).—Finely incurved; equally desirable as Lady Harding.

Carissima (Salter).—Incurved white; will I think prove one of the best.

General Slade (Salter).—Very distinct; a decided improvement upon, and same colour as Two-coloured Incurved.

Cherub (Salter).—Broad petal, well incurved, colour golden fawn.

Dido (Salter).—Colour pure white, very double shell petal, apparently first-rate for specimens.

Sparkler (Salter).—A very pretty flower of the Auguste Mié class.

Lord Ranelagh (Salter).—Colour reddish-fawn, broad petal well incurved, and very good habit.

Le Trouvere (Barthese).—Delicate peach, fine broad incurved petal; a decided improvement upon Miss Kate.

Louis Barthese (Barthese).—Beautiful crimson red, broad petal, and very finely incurved.

Lady St. Clair (Downie, Laird & Laing).—Clear white, a very fine and distinct sport of Queen of England.

Striped Queen (Downie, Laird & Laing).—Another of the many sports of Queen of England; colour white, prettily striped pink.

Madame Heyne (Bull).—A very desirable white Pompon in the way of Mrs. Turner.

Frampton Park Nursery, Hackney.

W. HOLMES.

SMALL POTS VERSUS LARGE POTS

IN THE CULTIVATION OF THE PINE APPLE.

It is now a pretty well established fact in horticulture that Pine Apples can be produced with greater ease and certainty, and equal in size, when cultivated in moderately-sized pots, than when the largest are adopted. However difficult or otherwise it may be to account for this, it is, nevertheless, being proved in daily practice. So far as my own experience goes I find larger Pines produced in 10 and 11-inch pots than in others of a larger size. At present there are in one of the fruiting Pine-pits here a quantity of fruit; and I find on examination that, without exception, the finest fruit are in 10 and 11-inch pots. Some of the Pines in these sizes range from 7 lbs. to nearly 9 lbs. weight; while others in pots of larger dimensions are not yielding such fine fruit. Similar results have occurred under my own notice several times, and the practice and testimony of other growers are corroborative of the same.

The plants to which reference is made at present are precisely the same in age; and their treatment, with the exception of their being in pots of various sizes, has been the same also.

Granting the correctness of the foregoing premises, if it may be termed so, there are other important points besides superior fruit gained by the adoption of small pots. Many of the operations connected with the cultivation of Pines in pots are rendered much less laborious, and the expenditure for pots, soil, and plunging material is considerably reduced. The return

of fruit is not only equal, if not more in bulk, but is at the same time more speedily realised; and these are important matters in these days when great demands are not unfrequently pressed upon gardeners with limited means.

Take, for instance, a sucker from a Pine plant in September or October. It is potted into a 6 or 7-inch pot; in February or March it is transferred into a 10 or 11-inch size to fruit in; by the middle of August it has filled its pot with roots, and matured its growth under all the light and natural heat of summer. Next January, fifteen months after it was detached from the parent stool, it is started into fruit, and is king of the dessert in May. Rapid work this. What would our grandfathers, or even fathers, say to it?

Given the same sucker, and let it be transferred into pots of a much larger size, would its state of fruiting maturity be arrived at so easily and so naturally? Not, certainly, without checks and counter-checks—expedients which invariably result in inferior fruit to those presented by plants which have crowded their pots with roots, and the growing course of which has ended in a natural maturity. Nor is this any more singular than that a Strawberry plant grown in a 5-inch pot should yield larger individual fruit than when the same plant is shifted on into a pot twice the dimensions. It is the general experience that with most things there is nothing so thoroughly essential to a bold and certain development of fruit than a pot well filled with roots; and, as a consequence, a well-ripened growth. This, after a proper season of rest, seldom comes short of successful results; and is more likely to be attained, especially when to be done in a few months; by the use of small pots, besides being particularly applicable to the Pine Apple. The theory of the matter may form the subject of another short paper.

Archerfield Gardens.

DAVID THOMPSON.

RELATIVE TO ROSES.

At the commencement of a new year and new series, I must ask for a place for the following observations. Before I begin, let me say, that with grateful recollections of Mr. Turner as co-Editor with Mr. Spencer, I hope the new series will flourish. If ability in the resident Editor be a guarantee, and if contributors will write plain common sense and their *experience* on subjects, with which they are acquainted, I see no reason to doubt, that the new *FLORIST* with its two beautiful plates, will be one of the best publications in the world. Of the courtesy of the two present, as well as of the two former Editors, I have every reason to speak in the highest terms. I am sure that articles which, though they may be controversial, are yet free from personalities and the imputation of improper motives, will be received with gratitude by the Editors; and that, if they are of an instructive character, they will find a place in the new series. Long may it flourish, wide may it spread, and may its Editors, contributors, and purchasers, ever maintain a Christian spirit and friendly feeling towards other similar productions.

An invariable article in every *FLORIST* may be an injury, as it must tend to shut out other contributors, who, in due time, finding that their labours are not appreciated, will cease to be among the staff of writers. If the present article be inserted I will endeavour to be silent, that others may communicate their ideas; but, having been kindly asked by both the present Editors to support the new series, I should be sorry to omit the first opportunity of sending a few friendly inaugural words, and, also, a few useful observations on a theme that to me is inexhaustible.

A word in reference to some Roses.

(1) *Isabella Gray*.—I have had this Rose, three years in the crux of a wall facing south-east, and have never yet had a flower. It was removed to a south wall in September, and I shall not cut it at all; it will only add to its blindness, and produce more unripe wood. It will be merely cut to a good eye on the tips where the wood is ripe. If it again fails, I think to put it on a limb of Madlle. Aristide; it is probable that it would succeed on the Banksia. Solfaterre, Gloire de Dijon, Triomphe de Rennes, and Celestine Forestier are so good, that I do not care much about it; it will always have one of the faults of the Cloth of Gold, whose daughter it evidently is—viz., extreme succulence and tenderness at its tips. I have had two beautiful blooms of l'Enfant Trouvé, sent to me by Mr. Cant, which will, if hardy, quite supply the place of the Cloth of Gold. I have ordered six plants of it.

(2) *La Boule d'Or*.—This one should have been called the "Golden Peak" as the buds are long, perhaps too long. "D." rightly says it is worthy of further trial; its proper colour is light yolk of egg colour. I have one plant of it, which is the only pot Rose that I shall dare to leave out this winter; the wood is as hard as that of Gloire de Dijon. It came a little plant with three buds on like eyelashes grafted on a darning needle; those buds withered away, it then cast quickly 7 buds, and in a few days after three more. I took off, when half grown, nine buds, and bloomed the other bud, which opened well, and a beautiful Rose it was. After this it formed ten more buds, bloomed two of them tolerably, and the cold weather spoiled the others. I shall buy five more plants of it, which, added to six l'Enfant Trouvés, one Solfaterre, one Viscomtesse de Cazes, one Elise Sauvage, and seventy trees of Gloire de Dijon and Triomphe de Rennes, will complete my yellow staff: whatever may be said to the contrary, the two last are the two best yellows as yet. The last is the best of all for substance of petal, smoothness of edge, and invariability of good formation. Against a south wall I have grown it hard upon four inches when expanded, and of a rich golden yellow. The Cloth of Gold is either magnificent, or it is nothing: in country places it has *bamboozled* the country judges more than any other Rose in Christendom, and caused more wrong adjudication of prizes than any other.

(3) *Triomphe d'Amiens*.—"D" says, "the French pronounce this Rose to be a veritable Jacqueminot!" Then, I say, "a pump is an elephant." The bloom is deep lake mottled like a coach dog. I had two plants of Mr. W. Paul, and eight more most excellent ones are come; but neither the wood nor the bloom is like Jacqueminot. There is only one point of resemblance: the blooms of it when expanded would not this summer have been quite full. Let us take the raisers' description, which I find to be true (minus fulness), "large, full, velvety carmine lake strié et panaché"!!! Furtado and Washington are, without doubt, A1; the last is a large clear red of good formation with fine habit and foliage. Two briars budded this season with Furtado have now (November 4) blooms upon them. I pronounce Amiens to be a most distinct and choice Rose. As to fulness you cannot expect "weaklings" to fill up the centre; neither Senateur Vaisse, Madame C. Crapelet, nor M. Melaine were quite full here to the centre.

(4) *Duc de Cazes* "is good for nothing!"—I am sorry to differ again. It was in Mr. Fraser's pan at the National, and it was the best dark Rose in the show; his Princesse Mathilde was also beautiful. Three plants of this last Rose, and also one plant of Abdel Kader, just come, are excellent. For the general public, and also for amateurs, I have little doubt, bearing in mind the above bloom, and looking at the plants here, that the Princesse will turn out to be the A1 of last year's dark Roses. Mr. Wood, in a letter to me some time since, spoke of the Duc de Cazes as a gem: it is difficult to account for

the opinions of the French as to these two Roses. The habit of the Duc I do not know, as I cut up mine as soon as I returned from the National for propagation together with others that I have recommended; and I may mention as an instance of sincerity, that I have budded and bought to a great extent all the Roses that I have recommended. I have thirty-two briars budded with Maroc and Santenay, besides six more purchased plants of the last, six more of Belle de Bourg-la-Reine (petals as stout as those of P. Léon), and six more of Sénateur Vaisse. These three are A1.

Rushton Rectory.

W. F. RADCLYFFE.

NORTHERN SPY APPLE.

WITH AN ILLUSTRATION.

THIS is not at all a new variety of Apple nor one which is to be estimated on account of its rarity, for it is one that already exists in several nurseries of this country, and in not a few private collections. It is entirely for its intrinsic worth that we have been induced to select it as one of the subjects wherewith to grace the first Number of the *FLORIST AND POMOLOGIST*. Its size and handsome appearance would alone recommend it to be grown in any collection; but when it is known that it is a dessert Apple of the finest texture and excellent flavour, it commands an interest, which attaches to but a few even of our best varieties.

Although a native of North America, it is one of those varieties which attain their greatest perfection in this country. Even as a standard, an open dwarf, or a pyramid, it ripens perfectly and grows to a large size; but when grown against a wall or in an orchard-house it acquires a size and beauty and a delicacy of flavour which it does not when grown in the open ground. Our figure was taken from a fruit grown in an orchard-house by George F. Wilson, Esq., at Gishurst Cottage, Weybridge Heath. The tree was planted in a pot, and the fruit was set in the house; but during the summer months it was turned out in the open air, and there the fruit was ripened.

The fruit is fragrant when ripe, large, ovate, inclining sometimes to conical. The skin is thin, at first of a greenish-yellow on the shaded side, and on the side next the sun covered entirely with a thin, pale, crimson cheek, which is covered with broken streaks of a darker crimson; but as the fruit acquires maturity after being kept, the shaded side changes to a rich golden yellow, and the crimson becomes brilliant. The whole is covered with a thin bloom like a Grape. Eye small and closed, set in a very deep, narrow, and furrowed cavity. Stalk three-quarters of an inch long, slender, deeply inserted in a wide hollow. Flesh white, very tender, fine-grained, crisp, and very juicy. Juice sprightly, sweet, and with a fine delicate aroma.

A valuable dessert Apple, in use from December till May.

The tree is a fast and vigorous grower, and has an upright habit. When it acquires a little age it is an abundant bearer; but it is apt to become bushy-headed, and therefore requires frequent attention to keep the head open and free of spray.

This excellent Apple originated, about twenty years ago, in the State of New York, on the farm of Oliver Chapin, of Bloomfield near Rochester. It belongs to the Spitzenburgh race, and bears some resemblance to the Esopus Spitzenburgh. Gradually it became a favourite among American orchardists, and in 1843 we find it one of the sorts which were recommended "for trial" at one of the Pomological conventions. In 1847 the fruit was sold in New York at twelve and a half cents each.

H.



Northern Spy Apple.

J. H. Andrews Del.

THE PRINCE CONSORT.

THE Death of the Prince Consort is an event we cannot allow to pass away without recording our sympathy for the deep affliction which has befallen our beloved Queen, and our sense of the great loss which this his adopted country has sustained, through his much-to-be-lamented decease, in mid-life and in the full tide of public usefulness and philanthropy. To the profession of Horticulture the late Prince Consort was at once the truest and most invaluable of patrons, and to *him* we as a body owe a lasting debt of gratitude for the deep interest he took in all that belongs to the science and art of Gardening. We need only refer to the Horticultural Society, and compare the difficulties, financial and otherwise, which surrounded it when he accepted the President's chair with its present flourishing condition, to show how much the Society (and Horticulture in general) are indebted to the warm interest he took in resuscitation and progression, and the support which was afforded in consequence by Her Most Gracious Majesty and her family. The example thus set by the late Prince cannot, we hope, fail to have due weight with the Prince of Wales, and we sincerely hope he will enjoy the same amount of pleasure and gratification in encouraging and promoting the arts and embellishments of life which were so largely shared in by his august Father, whom Britain will long mourn and revere as the most esteemed and virtuous of Princes.

IN-DOOR GARDENING.

I AM attempting some in-door gardening in one of the thickest and most crowded parts of "London's rich and famous town." With Drury Lane on the east and St. Giles's on the west, I am by no means in a spot adapted for vegetative development. None of the "spicy breezes," the "fragrant odours," the "pleasing prospects," of the poets here; though there is an abundance of "native perfumes," something more than whispering

"Whence they stole those balmy spoils."

My greenhouse is my window-sill and a small yard—so small that four strides in one direction will give you its length, and three in another its breadth—and this frowned upon by houses and workshops four storeys high—a kind of burlesque on the "dark valley" scene in the "Savourneen Deelish" at the Lyceum Theatre. My conservatory is my chamber window with two light shelves, one at its base, the other at the division of the sashes; my mantle-piece, and a small table originally intended for the purposes of dressing, but pressed into the service of horticultural operations. Atmospheric conditions, position, and locality are all against me; but in the face of difficulties things apparently hopeless, if not impossible, have been attempted and accomplished; I attempt, and if failure comes I can but join issue with Lady Macbeth, and say, "*We* fail." I am essaying nothing novel, nothing claiming originality, but my process is full of interest for me, and is a source of no ordinary gratification. My plan, too, is easy, it requires but little labour, and can be accomplished at a moderate cost; but whether the result will balance the outlay remains to be seen. I began early in September. I procured some Saffron (autumn-flowering) Crocus. I merely stood them on some soil that filled three-fourths of some flower-pots and covered the top with moss. I employed shallow basins and dinner-plates for the same purpose, using moss only; but I got the best bloom where I had used the soil. They are out of bloom now, and thrown away. The pots were on the window-sill, the others on my table. I kept them moderately damp—just enough to encourage vigorous growth. The flowers of the Saffron Crocus do not possess the points of quality professional florists somewhat too arbitrarily contend for, to the entire discomfiture occasionally of uninitiated amateurs; but they awakened the liveliest interest in me, their shortcomings notwithstanding; and the diurnal observation of their shoots, gradually rising through the moss, and then developing their flowers, contrasted so markedly, even on so small a scale, with the gloom, and dirt, and sterility out of doors, that spring seemed to have parenthetically inserted itself between the decaying and death-like stillness of autumn and winter.

Their place is now occupied by another generation of tenants. I rise a step higher in my cultivable process. I now operate on bulbs of increased value. In two or three pots I have placed a *Polyanthus Narcissus*, and surrounded it with Crocus of mixed colours. At the time I write they are both starting rapidly into growth, and I have covered the moss with pots as before. The plates (soup-plates are the best) have either three small *Hyacinths* of three distinct colours in the centre, with Single Van Thol Tulips and Crocus intermingled, or else have a central group of the same Tulip with an outer circle of Crocus. These are

rapidly rooting in silver sand. I have profited by my experience of the Saffron Crocus, and it is both pleasing and amusing to watch their seeming struggles for a free development. One group with Hyacinths in the centre (in a soup-plate fortunately), presents the appearance of a violent eruption having taken place; they appear to be rooting so vigorously, that I am getting quite alarmed as to how they will dispose of them, for the bulk in the plate increases day by day. I am fearful that the aspiring propensities of the Hyacinths will upset altogether the symmetry and the harmony of my mimic winter garden. The Tulips seem to be much more modest in their requirements, though as yet they are not evidencing any signs of growth. Meanwhile, I have commenced the cultivation of some Hyacinths in glasses. I procure common glasses, of Tye's registered pattern, with supports—they answer my purpose while they square with my means. I grow a few double, but generally single Hyacinths in glasses, the latter give the best spike in water and the finest-formed bells. I have some eighteen varieties in cultivation, all of which are rooted well down to the bottoms of the glasses. I allow the water quite to touch the base of the bulb, not nearly to touch it as some write and say, and I have kept them almost entirely exposed to the light from the commencement. If I find the water at any time emits a bad odour, I change it; if not, I simply keep the glass filled up as evaporation takes place. They thrive admirably on the shelves in the window and on the mantelpiece; and, should frost threaten, I remove them from the window to a safe distance. They grow slowly but strongly, for occupying the room but little, I seldom have a fire. The following are the kinds I have in cultivation. *Double Blue*.—Othello. *Single Blue*.—Prince Albert, Grande Vidette, General Lauriston, Argus, Couronne de Celle, and Uncle Tom. *Double Red*.—Sir J. Paxton, Lord Wellington. *Single Red*.—L'Étincellante, La Reine des Beauties, Cosmos, Norma, and Robert Steiger. *Double White*.—Blanchard. *Single White*.—Mont Blanc, Alba Maxima, Pavillion Blanc, Grande Vainqueur, and Grande Vidette. I have also a few in pots that are not so forward as those in glasses, they are newer varieties to me, and I am testing their merits. Some of the kinds are in glasses, are intended for the same state of probation. I am cultivating in pots, in a small one-light box. I use 32-pots, and the soil is a mixture of loam and rotted manure, with some road or silver sand in it. This compost can be procured at any nursery. I also place some well-rotted manure at the bottom of the pots, my knowledge of Hyacinths leading me to infer that they love to feed on something of this kind. I almost cover the whole of the root, and I pot them lightly for the same reason—that in rooting the bulb should not be forced upwards, as is sometimes the case when they are potted hard, or the bulb is nearly wholly exposed. I simply stand them in a cellar to encourage them to root. I have now introduced them to the frame. I have potted a few Tulips as well, three bulbs in a pot, using the same size as for the Hyacinths, and the same compost. I have of *double* varieties: Extremité d'Or, Prince de Galitzin, Tournesol, Imperator Rubrorum, and Mariage de ma Fille; of *single* varieties: Feu Rouge, White Pottebakker, Golden Prince, Vermilion Brilliant, and Couleur Ponceau. As I potted these much later than the Hyacinths, I anticipate that they will succeed them. I intend when they are in flower, and as soon as the blooms are fully expanded, to tie a piece of fine cotton round them, by this means they can be prolonged in flower for a considerable period. I fear that should I be successful in flowering both my Hyacinths and Tulips in pots, that their beauty will become sadly marred by the showers of blacks that constitute a considerable portion of the atmosphere; but then it is one of the inevitable disadvantages of large towns and cities. I pot but a very few Crocus, they scarcely repay the trouble of growing in pots, their bloom has such a brief existence. I place six bulbs in a pot, and have used for that purpose Mrs. B. Stowe, Liliaceus superbus, Sir Walter Scott, and Golden Yellow.

Such is the nature of my attempt, and the process by which I endeavour to achieve the results contemplated. I am persuaded that more can be done in London in the way of in-door gardening than is generally conceived. There is pleasure not unminged with some profit in the attempt, even if the results are abortive or altogether disappointing. Cultivating under such manifest disadvantages I cannot hope to contend for the prizes offered by Mr. Cutbush to amateur growers of Hyacinths in the ensuing spring; but I have the satisfaction of knowing that I am co-operating with him, though in a very small degree, in the widening of the area of its cultivation; and I hope to see the collections that will be staged in competition for his prizes, to observe how wide is the "line of demarcation" between the successful groups and my humble and less-favoured productions. In one sense I shall gain a prize notwithstanding, in the high gratification I reap daily at ever so cursory an inspection of my bulbs, and rising to higher levels as the season for blooming approaches. Here is a source of real pleasure from within. The best and most satisfying sources of happiness spring from within us, and I seem both to see and feel something of the truth contained in the couplet of the poet—

"Ingenuous arts, where they an entrance find,
Softens the manners and subdues the mind."

Quo.

BOUVARDIA LONGIFLORA.

THERE are several very pretty varieties of Bouvardias, but I wish to draw attention to this on account of its white wax-like flowers, and fragrance—good qualities, which make it a very desirable plant for small vases for the drawing-room, and equally useful for cutting and the making up of bouquets.

The plant is rather difficult to propagate, as indeed are all the genus; but having an old plant or two, with well-ripened wood, a stock may be obtained in the spring, by taking off the young shoots when about an inch in length, which will strike well enough in sand under a bell-glass, and plunged in a briskish heat. When sufficiently rooted and hardened off, they should go into "thumbs," potting them in turfy peat and sand, with good drainage, and when these pots become full of roots transfer them to 4 and 5-inch pots, for blooming. The young plants will require a warmish pit when the temperature averages about 60°, and to be kept pretty near the glass to prevent drawing. When they commence growing, pinch out the point of the shoot to encourage their breaking laterally, and as the season advances plenty of air and light should be given, taking care that the atmosphere is rather damp than otherwise. If not kept near the glass the plants are sure to become straggling weakly things; and as their beauty will entirely depend on being kept dwarf and bushy this must be attended to, for they will not bear stopping oftener than once, the flowers being what are called terminal, or produced at the top of each shoot, and require these to be tolerably strong and well ripened to produce blooms; but with good management you may frequently obtain from three to five heads of bloom on spring-struck plants; still they must be well grown to do this. Towards the middle of August the plants may be more fully exposed by taking off the sashes entirely during the early part of the day; this treatment will apparently stop their growth, and induce the formation of the clusters of buds, which during the autumn months will be produced freely in proportion as the shoots are strong and have been duly exposed for ripening. We have never very successfully managed the plant as a specimen, its tendency to grow in a loose straggling way cannot be overcome without much trouble, and therefore I never keep them beyond the second year.

There are several beautiful varieties of *Bouvardia longiflora*, some of them having a much better habit than the species. *L. carnea*, a delicate flesh colour, and very sweet, and Brilliant and Hogarth are scarlet and of good habit; while *L. Laura*, *Oriana*, and *delicata*, have rose-coloured flowers,—these are all worthy of cultivation as distinct varieties. The treatment they require is precisely that given above for *longiflora*, but these latter make nicer specimens than that variety.

F. A. K.

THE WARDEN'S GARDEN AND THE WARDEN'S GARDENER.

DURING a long enforced sojourn in the city of Winchester, which lasted through much of the last summer and autumn, I renewed my acquaintance with the dear old College at which I spent seven years of my boyhood, and where I acquired no mean portion of whatever learning I have since possessed. The facilities for improvement, however, were not "in my time" what they are now; and few, if any, of the older educational establishments have so wisely and so manfully grappled with the prejudices of centuries, nor profited so largely by the experience of modern energy as Winchester College. The system, the meals, the playground, the dormitories, the buildings themselves, are changed and still changing, and all for the better. The portion, however, within its precincts with which alone I have now to do is the Warden's garden.

It is of considerable size, consisting of about three acres; and though the College grounds are in the lowest part of the city, and consequently are flat, it has great capabilities. It is walled in on all sides with substantial walls of stone, brick, and flint rubble, having the Warden's house and part of the College on the north-east angle, and, though of no exact regular figure, is nearly as broad as it is long. Through it from east to west, close to the house and College, runs an arm of the Itchen, cool and rapid as the Itchen in all its branches is, and full of large trout. Crossing this from the back door of the Warden's house by a rural bridge, you come upon a handsome well-kept lawn, much broken up by beds on the north side, or that nearest the house, and by superb Plane and other trees surrounded by seats over its whole extent. This part is especially the pleasure garden, though there are more beds of flowers besides several clumps and borders in the other compartment—an improvement introduced by the present gardener; for the garden is divided into two unequal portions by a serpentine hedge interspersed with magnificent trees, the eastern or smaller portion being the lawn, which the late Warden, who died last year universally regretted, permitted to be used for the horticultural shows, in which he took much interest.

A gravel walk belts the entire garden, and, by disappearing behind the trees at the end of the lawn and not returning down the hedge that divides it from the fruit garden, adds to

the appearance of size. A border between the gravel walk and the wall is, in the lawn half, appropriated to flowers; and the wall is covered with ornamental creepers, among which a magnificent specimen of *Glycine* shines conspicuous.

The *Wellingtonia* is small, but the *Pinus excelsa* is one of the finest in the kingdom. Being well sheltered among the lofty trees around, it did not suffer at all during the last severe winter.

The collection of herbaceous plants, all well labelled and occupying portions of both divisions of the garden, is said to be unequalled in the neighbourhood; which, however, is hardly giving it its due, as highly cultivated gardens are at a discount here. And when we find that all the alterations and innovations have emanated from one head, and that one having no hands under him but his own, with the exception of occasional help in a busy time, it must be admitted he has fairly won the estimation in which he is held.

Late in the year and in wet weather in so low a situation, the amount of foliage from so many trees of such ample dimensions produces a drip and a dampness underneath that is better suited to some ornamental Ferns, and other similar plants that flourish underneath, than to their human admirers.

The fruit garden has its walls well covered with useful fruit trees, more with Plums and Pears than with Peaches and Nectarines. There are also several Gooseberry and Currant trees among them for the convenience of matting up the fruit. The Apple trees are all of fine sorts, and mostly had a good crop on them, which in such a year as this speaks well for the management. The Vegetables were equal to those of any market garden near London: the Onions in particular looked like a cargo of Portugal Onions set out by hand to look as if they had grown on the spot. The gardener prides himself on his Onions; and this is the only year, he told me, in which his Potatoes had suffered from the disease for many years—as, owing to the change of Wardens and the absence of the present one, he did not like to carry out his system without consulting his master, and thus he was ten days too late. His system being to lift them very early, before any rain can wash down the spores of the disease from the haulm to the tubers. He watches the weather, and considers ripeness not so important as the avoidance of heavy rain after they are useable.

At the north-west angle of the premises are the houses; and of these there is nothing to be said in praise. There were some well-coloured Hamburgh Grapes, and some handsome Ferns under them. But all this department was below the mark. On inquiry in other quarters I understood it had been of purpose neglected to avoid expense; and I was reminded of an anecdote I once heard of a man whose son bitterly reproached his father's memory for having "muddled away his money paying his bills." The late Warden seems so far to have resembled him as to have let his fine garden fall behind its capabilities, owing to a habit which seemed inveterate with him to spend his money not on himself, but in relieving the necessities of his fellow creatures.

The gardener, Mr. Weaver, is a personage as well worth making the acquaintance of as the garden under his care. His skill is attested by the health and productiveness of all under his charge; and the *Gardener's Chronicle* and *The Cottage Gardener*, to both of which he is an occasional contributor, keep up his theoretical knowledge of what is going on in the gardening world. To these, henceforth, I hope, the *Florist* will be added. He has been a successful exhibitor both of flowers and fruit when the shows in the neighbourhood were kept up with spirit, and in Apples took usually the first prize. Since the late Mr. Wickham's death they have gradually declined in interest (indeed, one held at Southampton, at which I could not be present, was said to be a poor thing), and Mr. Weaver has contented himself with acting as judge. He is a humourist withal, which is no bad foil to his sterling good sense.

The last was a prolific wasp year, for instance, and still worse for the pest that devours the leaves of Gooseberries and Currants. When he was pointing out a wall Green Gage tree covered with ripe fruit unprotected, I remarked that I supposed the wasps troubled him,

"No, sir," was the quiet but decided reply.

Thinking he had misunderstood me, I repeated the words.

"No, sir, they don't. Nothing troubles me."

"Ah, well, that is right. It should not trouble any of us. But I mean, you find they take more than their share."

"No, sir. They are easily kept under. All the destroyers of a garden are. My remedy is *Catch 'em and kill 'em*. I do not search for their nests. Wasps will not attack you, do what you will, if you do not go near their nest. They have never come much to these houses. They did to my own, for I have two vineries of my own; and when I found that, I cut out a piece of wood like a small racket with a handle and a broad circular blade, and took my stand in the open doorway, or wherever else they entered, and knocked down every wasp that came in. After a few days they left off the attempt, and came but little more."

"So, again, when I am asked, for I often am asked, about the Gooseberry caterpillar, I tell them the same. I have read all the methods that have been proposed—lime, hellebore, and others. But lime disfigures the garden, and hellebore is a serious thing to use with

eatable fruits. I say, Catch 'em and kill 'em. It will not take much time if you do it properly. Look over the trees regularly and carefully, and kill them while they are small and before they have dispersed. The finger and thumb is the best trap."

"Ants, again, do much damage to some people, and various means of getting rid of them are prescribed in books. I say again, Catch 'em and kill 'em. That is the best way. They came in great numbers to my house; so I found their runs, and took a hammer, and placed a mat to kneel on where they crossed the hard path, and when I went home to dinner at twelve o'clock I spent some time daily killing every ant that crossed the path at that time, and kept account of all I killed. One day I killed 70, another 80, another 90, and so on. They could not breed so fast as that—they must diminish; and when they changed their runs, as they often did, I changed my place of killing them. But I found they were as clever as I was: and that is not enough—they were cleverer than I was. I found that no more ants came, and I supposed they were destroyed. But I was mistaken. They had discovered that it was unsafe to travel at noon, and so they kept at home from twelve to one. The wall is an old one and full of holes, where I suppose they breed; but it is not mine, or I would soon have them dislodged. But I was obliged to shift my time of watching for them, and so managed to get them under at last."

"Did you ever try guano?" I asked.

"No, I never did. I have heard of its effects." And then he made me describe minutely what I had done with it and what it had done with them. And then he resumed, "But it does not kill except a very few. It only drives them from one place to another that perhaps may be worse. My plan is best after all. It takes much less of time and trouble than people imagine, if they set about it in earnest. And it is certain and effectual."

The above is the substance of his remarks, and in many instances given in his own words. The dry humour with which they were interspersed I cannot convey. Perhaps an anecdote may help. At my instance he had admitted a little girl, the daughter of my landlady, with my servant to see the gardens. This child, doubtless instructed by her mother, on leaving thanked Mr. Weaver for his kindness, and presented him gravely with a sixpence. Mr. Weaver, much amused, said, "No, thank you, my dear, I don't want this. I am a very rich man. I have as many sixpences in my pocket as Queen Victoria has in hers." And the puzzled and deferential look of the child told how great a man he was in her eyes.

Whether his plan would generally answer with wasps I cannot say. I should doubt it, for the wasp is not an intelligent insect. But with the others I have not the same doubts, and his garden was an instance of its efficacy. The Gooseberry caterpillar has been peculiarly destructive this year. And though a space of not more than twenty yards divides the Warden's from a market garden not half the size, in the latter I had noticed the Gooseberry and Currant bushes with their fruit still hanging and not a leaf on any of them; while on those under Mr. Weaver's treatment not a leaf was missing. And though I believe the system would be more perfect by being carried back to the origin of the evil, in wasps and ants by searching for and destroying the nests, and in the Gooseberry caterpillar by paring and burning the earth under the bushes in January, yet I confess I went away much impressed with the sound practical wisdom of the motto, *Catch 'em and kill 'em*.

Alford Rectory.

GEORGE JEANS.

THE PATENT HYDROSTATIC FLOWER-POT.—Messrs. Brown and May, of the North Wilts Foundry, Devizes, have sent us a drawing and description of their new patent garden pot, which is of the ordinary form as to shape, but manufactured with one or more hollow rims or reservoirs running round the outside, which, being filled with water when required, keeps the material of the pot constantly moist, and consequently prevents those extremes of dryness to which, by exposure to a dry air or the sun, the old form of pot was liable, and through which hundreds of tender plants have either died annually or have become injured. Growers of valuable, and particularly of those fine hair-rooted plants, which suffer most by the abstraction of the moisture from their balls of earth by evaporation through the sides of the pots, will be glad to give this pot a trial which we think its merits deserve; as will also growers of other classes of plants and fruit trees. To amateurs, having greenhouse or orchard-house, the invention will be valuable, as relieving them from that close attention to the requirements of their plants which was necessary with the old form of pot.



CONTEMPORARY NOTICES.

BOTANICAL MAGAZINE.—This old familiar Magazine, which we must all remember from our boyhood, has just completed its eighty-seventh volume, which is the seventeenth of its third series. In the Number last issued the following plants are figured:—*Rhodanthe Manglesii sanguinea*, which is a distinct and pretty annual, worthy of bearing Drummond's name of *R. astro-sanguinea*; its foliage, habit, and flowers are all different, though bearing a certain resemblance to those of the older kind. One conspicuous difference is the blood-red disk of the present plant, which has been received by Mr. W. Thompson along with another equally desirable called *R. maculata*, from Western Australia. *Begonia Kunthiana*, a fruticose species from Venezuela, with lanceolate-oblong, saw-toothed leaves, green above, red beneath, and producing two or three-flowered axillary peduncles bearing large white flowers. *Dendrobium triadenium*, a white-flowered Malayan Orchid, introduced many years ago. *Verticordia nitens*, a glorious greenhouse shrub from Swan River, belonging to a group of myrtaceous plants, the Chamelauciaceæ, which has hitherto been almost unknown in gardens. This species, which is also called *Chrysorrhoea nitens*, has been introduced and flowered by the Messrs. Veitch & Son. The plant, which branches everywhere, forms itself into a condensed corymbose mass, the whole circumference of which is covered with brilliant golden stars, of which the calyx forms the more conspicuous part. This organ is five-lobed, the lobes cut into several linear segments, each of which is plumosely fringed. *Vriesia cyphostachys*, a bromeliaceous stove plant, with long, narrow, smooth-edged leaves, dilated at the base, and a spicate inflorescence of compressed distichous bracts, from which issue the purplish-blue flowers; it is supposed to be Brazilian. *Bolbophyllum barbigerrum*, an old-fashioned stove epiphyte, of which it is remarked—"Glorious as are the flowers of many of the larger kinds of orchideous plants, yet many of the smaller kinds are more wonderful and more curious in their structure and organisation, and this is assuredly one of that kind." In truth, there is at the end of the lip or labellum, if any reader should prefer the technical word, a brush of long purple threads, so delicate as to be set in motion by the slightest disturbance of the air about the plant.—M.

NOTES ON NURSERIES.

MESSRS. VEITCH & SON, CHELSEA.—The fine collection of plants in this establishment always yields something interesting, even at the most flowerless season of the year, and that without any special attempt being made to provide a supply of winter flowers. One of the first things to catch the eye on entering from the King's Road, is *Lapageria rosea* covering the roof of one of the wings of the vestibule conservatory. The plants are growing in a border prepared for them beneath the stages, and after furnishing the pilasters, are trained horizontally beneath the roof, which is gay with their charming pendant, bell-like, rose crimson flowers. This is undoubtedly one of the finest of greenhouse evergreen climbers. Other examples in pots trained on an umbrella-shaped trellis, which is the form best suited to display the beauties of the plants when pot-grown, were flowering in other greenhouses. *Lycaste Skinneri*, a plant of which an abundant bloom is furnished throughout autumn and winter, Mr. Veitch grows in large quantities, and we believe the growth of these plants is made in a greenhouse climate; but what is most remarkable about them is, that no two of them are alike in the colouring and marking of their flowers, though a general similarity runs through them all. Some very beautiful varieties have been already selected out of this fine batch, as the pages of the FLORIST, and earlier portion of the *Floral Magazine* will testify. This is just the plant for drawing-room decoration, for it blooms well in small pots, has permanent healthy foliage of bold exotic character, and large showy flowers, and, above all, flowers that last long in perfection. We believe the individual flowers will continue fresh in such a situation as that indicated for as long a period as two months, if not more. Another flower of the winter solstice here largely grown is the white-blossomed *Calanthe vestita*, of which the varieties with a deep crimson eye, with an orange yellow eye, and with the flowers pure white without spot, are severally well marked, and each of them in their way charming. The fault of the plant is its flowering when unfurnished with leaves; but, as it may be grown in small pots and set amongst other subjects having compensating foliage, this need not prevent its very lovely blossoms being turned to good account in furnishing warm conservatories and flower-stands in rooms. *Calanthe Veitchii* is a plant raised by Mr. Veitch from the foregoing, crossed with *Limnæa rosea*. This has the flowers of a brilliant rosy pink; it flowers, moreover, at this season, and while equally desirable, is very distinct on account of its colour. We must just mention two other Orchids, *Epidendrum vitellinum majus*, which had a spike

of flowers of the most vivid fiery orange scarlet, one good example of which is enough to brighten up a whole collection. *Angræcum sesquipedale*, the great Madagascar wonder, with flowers among the largest of the order, white and ivory-like in texture and appearance, and having a slender terete spur lengthened out to a foot or more, and looking like a slender tail hanging from the flower. The habit of this latter is that of the Vandas. Mr. Veitch has some very pretty variegated *Anæctochilus*-like Japanese plants, probably *Goodyeras*, of which, and other fine things in this way, we hope to have a word to say hereafter. For the present we can only observe that the prettiest of these appear to be one with green-veined leaves edged with deep golden yellow, and another with the centre of the leaf of a paler yellow than in the former. Amongst Ferns new to our gardens, we observed *Lomaria gibba*, a greenhouse species from the islands of the Pacific, recently brought to England by Sir D. Cooper, and promising to be one of the finest, for ornamental purposes, of this very beautiful genus of Ferns. It is very rare, if not unique. A small ridge-and-furrow-house—a capital plant-house by-the-by—was devoted to the establishment of a splendid lot of Australian Tree Ferns, recently imported and consisting of (1) a very graceful, slender, tall-stemmed species, which we understand Sir W. Hooker names *Alsophila Macarthurii*; (2) noble plants of *Alsophila australis*, some of which with stems about seven feet high and eight inches in diameter, and perfectly symmetrical, are amongst the handsomest, though not the largest, examples we remember to have seen in our gardens; and (3) some fine stems of *Dicksonia antarctica*. Here are also in course of “formation” some grand globular specimens of the various *Gleichenias* now in cultivation, which look as if they were entered for some of the cups to be won next year. We ought to mention, as useful plants for this season, *Solanum pseudo-capsicum*, and *S. capsicastrum*, little bushes laden with bright orange fruits, the former of more vigorous habit than the latter, and here grown with a short tree-like stem; its fruits too, rather deeper colour—both of them suited either for greenhouse or table decoration. Nor should we forget *Ipomœa Horsfalliæ*, an old-fashioned gorgeous creeper for the roof or rafters of a stove, which no one could well regret having planted in such a situation.—M.

CALENDAR OF OPERATIONS.

CONSERVATORY.

With a good forcing-pit, and with some little experience and foresight there can be no difficulty in keeping up a gay appearance here. Chrysanthemums have continued longer than usual in flower, owing to the mildness of the season. They ought all, however, to be removed ere this, and the house thoroughly cleaned. Pay great attention to the arrangement of the plants; a few nice things effectively arranged will be more pleasing than a great quantity crowded and jumbled together. All climbing plants, if not already done, should be pruned and neatly tied, this will give the house a more lightsome appearance. Attend well to the watering of all plants in borders; never let anything get over-dry at roots; if you do, the spongelets will suffer and the plants will receive a check which they will not recover for months. Plants in flower-bud, if allowed to get over-dry at roots, will cast them off without expanding. For this reason Camellias, Acacias, and other plants in flower-bud should on no account suffer in the least for want of water. Heathes, Epacris and other hardwooded greenhouse plants should only be introduced sparingly, as the temperature of this house should be kept higher than is necessary for the well-doing of these plants. Without them there are ample materials for furnishing; we have Azaleas, Roses, Cinerarias, Chinese Primroses, Violets, Mignonette, Amaryllises, Hyacinths, Tulips, Narcissus, and other bulbous plants, not to mention Ferns, and variegated and ornamental-foliated plants. Though the weather so far has been very fine and open, we must expect more or less frost during the month. Maintain a temperature of from 15° to 50° by night and 55° to 60° by day, allowing it to rise by sun heat a few degrees. Water carefully and sparingly, but when anything wants it do it effectively. If any plants get green fly they should be removed to another house to be fumigated. If only for a short time give a little air daily, but guard against cold cutting winds,

GREENHOUSE.

The fine weather has been most favourable to these, as little fire heat has been required, and the weather has been such as to allow an abundance of air to be given. It is rather too early to encourage active growth. Maintain a temperature of 40° at night in frosty weather; if it fall 2° or 3° lower it will do no harm, but it is not advisable to let it get below 38°. In mild weather give plenty of air. In frosty weather be careful in giving air, always guard against cold draughts. Anything that requires cleaning, tying, or training, should now be attended to. Get pots, crocks, soils, sticks, &c., in readiness for potting next month.—M. S.

FLORISTS' FLOWERS.

The Cineraria.—Owing to the mildness of the season this plant has made rapid growth: consequently will require every attention to remove all decaying, old, and small spindling foliage to admit of the air freely to their centres; tie out as wide as possible, and stop some for late flowering. It will be impossible for you to pay too much attention to cleanliness in this plant. Fumigate occasionally but cautiously, or you may injure the foliage. Give air freely every favourable opportunity, and avoid as much as possible all cold and frosty currents of air. Be careful in watering, and give only to such as really require it. *Pelargoniums*.—Let care be taken to prevent the plants drawing up, or becoming too delicate. To effect this object give air in abundance on every favourable opportunity. Continue to tie out the shoots carefully and regularly, and give the plant as much room as possible, everything like crowding should be carefully avoided. Select from the plants which are well established in the pots in which they are intended to flower those you intend to exhibit early, and let them have a little fire heat every evening, the temperature ranging about 50°. Those intended for the late shows should be kept at a moderately low but

safe temperature. If you have plants which require repotting do not delay the operation longer. Young plants intended to grow into specimens especially, use rich soil, assist them with a little fire heat, and train the shoots as they advance in growth with taste and judgment.—CHARLES TURNER, *Slough*.

STOVE.

In severe cold weather, when hands can be spared from out-door work, every plant should be well looked over, and such as require it should be effectively washed and cleansed; if this work be properly done now much after-labour will be saved. Prune such plants as require it. Towards the end of the month commence potting; reduce carefully the balls of *Allamandas*, *Dipladenia*, *Clerodendron*, *Begonias*, &c.; when potted plunge into a bottom heat of about 75°. Much water will not be required until they begin to fill the pots with fresh roots. Syringe daily with water the temperature of the air of the house. Maintain a temperature at night of about 60°, and 70° by day, allowing it to rise 10° by sun heat. Give air carefully according to the state of the weather.—M. S.

FLOWER GARDEN.

In mild weather push forward alterations, so as to get completed before planting time. Protect bulbs in frosty weather, and whilst covered examine them daily, as mice and rats often make sad work among them whilst covered. Plant *Roses* in open weather; plant *Anemones*, if not already done. Prepare beds for *Ranunculuses*, giving them plenty of old rotten cowdung and leaf soil. *Pleasure Grounds*.—The weather so far has been most favourable for evergreen trees and shrubs, particularly so to such as were injured by the severe frost of last winter. The young wood has got tolerably well ripened, and if no very severe weather sets in they may get safely over this winter, and next season thoroughly recover the injuries sustained last winter. If appearances indicate a coming storm see that everything is properly protected that requires it. In open weather plant trees and shrubs, and mulch them well. Lay turf, turn and roll gravel walks, and give them a covering of fresh gravel. Make new walks; prune the more hardy kinds of trees and shrubs, and dig or fork the borders nicely over.—M. S.

FORCING.

FRUIT.—Pine Apples.—Do not let the fruiting plants want for water; give them a regular bottom heat of about 85°, and keep the temperature at night from 65° to 70°, and during the day about 75°, allowing it to rise 8° or 10° by sun heat. A lower temperature will do better for succession plants, about 60° at night and 70° in the day, and a bottom heat which should not vary much either above or below 80°. Water sparingly, and give a little air when the weather permits. **Vines.**—Stop and tie down shoots in the early-house. When they begin to flower keep the temperature about 65° at night, and 70° during the day, with an increase of 10° or 12° by sun heat. Keep rather a dry atmosphere. Muscats require a higher temperature for setting. Maintain a moist atmosphere in succession-house, and keep the temperature from 55° to 60° by night and 65° to 70° by day. Give as much air as the state of the weather will allow, always give it early in the forenoon, and close up soon in the afternoon. Late-houses should be got ready for starting. **Peaches and Nectarines.**—When those in the early-house are in flower the temperature by night may range from 50° to 55° and 65° by day, with an increase of 10° by sun heat. They should have plenty of air, if the weather will allow, but guard against cold currents. When the inside borders require water they should have sufficient given to moisten them quite through, and it should be of the same temperature as the air of the house. Disbud cautiously, thinning only a few of the strongest at the ends of the branches. When you see any green fly, fumigate immediately. Start succession-houses, begin with a temperature of 45° at night and 55° by day, with a rise of 10° or 15° by sun heat. If the inside borders were allowed to get at all dry whilst the trees were at rest, they should be well soaked with water. *Figs*.

—Begin these with 50° at night and 60° by day, and gradually increase it. Keep a moist atmosphere, and water freely after they come into leaf. **Cherries.**—Of all stone fruits these are, perhaps, the worst to force very early. A steady bottom heat of about 70° is of the utmost importance, as it causes an early root-action, from want of which failures often occur. Give air freely, and attend carefully to watering. **Strawberries.**—At this season these ought to have a bottom heat of about 65°. This will cause the formation of roots, which will cause them to truss and flower more boldly. Begin with a temperature of 45° to 50° at night, and 60° by day. They will not need much water until they begin to grow; whilst in flower they can scarcely have too much air if the weather will allow it. After the fruit is set the temperature should be raised to 65° to 60° by night and 70° by day. When sufficient fruit is set for a crop pinch off the remainder. Look out for green fly, and fumigate on its first appearance.—M. S.

VEGETABLES.—Asparagus.—Those in bearings should have a bottom heat of from 65° to 70°. Give plenty of air, and in fine weather pull the lights off in order to give as much colour as possible to the shoots. Make fresh beds for succession. **Rhubarb and Sea-kale.**—Keep up a succession. Take up plants, and place them in a gentle bottom heat in any dark place. This is the best plan in severe weather; but later in the season the old plan of covering with pots and boxes in the open ground and covering them with fermenting material answers well. **Kidney Beans.**—Sow for succession. Keep them near the glass, and water carefully. **Mustard and Cress.**—Sow once a fortnight in heat. **Potatoes.**—Plant Ash-leaved Kidneys. **Tarragon and Mint.**—Introduce a few roots into heat. **Cucumbers and Melons.**—Sow, and plunge in a good bottom heat. When up pot off carefully and replunge, keeping them as near the light as possible.—M. S.

ROSES IN POTS.—Where *Roses* are required all the year round we must suppose the collection of plants in pots to be cast in several groups. The first lot are probably already budding forth in the forcing-house, and others should be introduced at intervals of about a month. Those placed in the forcing-house early in January will flower from the beginning to the end of March, according to the degree of heat employed. At this season of the year ten weeks are required to produce really good flowers such as would please the connoisseur, although if quality of flowers is not a point of primary importance, they may be brought forth in six weeks. As I should prefer a good *Rose* in March to an indifferent one in February I believe there are many of the same opinion, I shall take the former period as my guide, and in accordance with this view would not for the first fortnight employ a temperature of more than 55° by day and 40° or 45° by night, increasing the temperature gradually till the end of the month. Syringe once daily, more especially on sunny than on cloudy days; and as the leaves form, water occasionally as required with weak manure water. Fumigate with tobacco the day the first green fly is seen, for nothing is more important than to keep the plants free from this pest.—WILLIAM PAUL, *Waltham Cross*.

HARDY FRUIT.

Plant fruit trees of all kinds in open weather. Prune all kinds of fruit trees when the branches are not frozen. Get nails and shreds ready for use in bad weather. There is every prospect of an abundant crop of fruit this year if the weather be favourable in spring.—M. S.

KITCHEN GARDEN.

The weather has been so favourable for out-door operations that the work here should be in a forward state. Take the opportunity of frosty weather to wheel manure on to ground where it will be required. Proceed with ridging, trenching, and digging, and have the ground in good order to receive the crops by-and-by. Attend to Lettuces, Cauliflowers, and other things in frames. Sow some early Peas and Broad Beans on warm borders. Get Pea-rows and stakes ready in bad weather. Look over the netting, and repair.—M. S.



Bougainvillea glabra.

BOUGAINVILLEA GLABRA.

WITH AN ILLUSTRATION.

THOSE who were fortunate enough to see the magnificent specimens of *Bougainvillea speciosa* grown by Mr. Daniels, gardener to Rev. C. E. Ruck Keene, at Swyncombe House, Henley-on-Thames, will be prepared to assign to the plant one of the very foremost places among the flowers we cultivate for their beauty's sake. A fragment of that fine species was represented in the old series of the *FLORIST*; and we have now the pleasure of introducing a very faithful representation—on a small scale indeed, such as the size of our page will permit—of another species of the same genus, which, though less gorgeous in character, has some qualities which, we think, place it on an equality with its more specious congener.

For the opportunity of figuring *Bougainvillea glabra*, which is the plant to which we here allude, we owe our thanks to Mr. Daniels, by whom it was flowered in October last, and by whom it was also exhibited at one of the Floral Meetings at South Kensington, when it obtained the award of a first-class certificate of merit. Though a very handsome plant, it was on this occasion admitted to be inferior in beauty to *B. speciosa*; and yet, notwithstanding, a very high opinion was formed of its merits: this being in great measure attributable to a statement made by Mr. Daniels that it would be found to do well in a warm conservatory, in consequence of its being much harder in character than *B. speciosa*, and also in some degree to what appeared to be a fair presumption—that it would prove an autumn or winter-flowering plant. Further experience and more extended information, derived from various sources, have proved to be entirely confirmatory on these points; and it is, therefore, with no little satisfaction that we figure this winter-blooming *Bougainvillea* as a thoroughly manageable species, (which can hardly be said of the more showy plant,) and as one which indeed, according to the experience of different cultivators, may be so treated as to be had in bloom at any season.

Compared with *B. speciosa*, our present subject is considerably more slender, is nearly smooth in every part, and has smaller, thin, elliptical acuminate leaves, the branches being provided with short curved supra-axillary spines. The inflorescence is paniced, smaller than in the allied plant, and with its branches somewhat bare towards their base, so that it is less densely furnished, but they are trichotomous at their apices, and each branchlet bears a triplet of cordate-ovate acute pale rosy bracts, not much exceeding the flowers, which latter open of a delicate primrose, and change to buff.

We learn that the Swyncombe plant commenced blooming at the end of August, and continued till the beginning of December, when it was stripped of its flower-panicles, which were required for decorative purposes. This plant it appears, although confined in a pot, continued to throw up strong shoots through the autumn, all of which became in turn covered with flowers. Mr. Daniels states that generally the shoots were developed and produced flowers within the space of about a month. "If my opinion were asked," he writes, "I should have no hesitation in saying that, considering the facility with which it flowers, its perfectly distinct habit, and its distinct season of bloom, it is quite worthy to be placed side by side with *B. speciosa*."

We are happy to be able to append some cultural observations with which Mr. Daniels has favoured us:—

"*Bougainvillea glabra* will, I have no doubt, soon become a general favourite in consequence of its very easy cultivation. The plant from which the specimens were cut that were exhibited before the Royal Horticultural Society on the 8th of October last, was not in my possession till the November previous. It was then in a 60-sized pot, in which it

remained till March, when it was potted on and placed in a cucumber-pit, where it soon made rapid growth. It was duly stopped and potted on till it finally filled an 11-inch pot with roots. The soil used was a mixture of peat and loam in about equal parts, with a little silver sand. This had all taken place by the end of June, when the plant was placed in a cool greenhouse, which was left open night and day. It continued there till about the middle of September, when it showed bloom at the points of all the principal shoots. It was then removed to the stove, where it soon began to develop its beautiful bracts, and in a fortnight it had twelve sprays of bloom on it, from a foot to half a yard in length.

"The plant has a fine compact habit of growth, and bright green smooth leaves, and differs in all respects (except the thorns at the base of the leaves), from *B. speciosa*. There can be no doubt but that it will bloom in a much lower temperature than the latter, and being an autumn bloomer it will be a great acquisition. In my opinion it would do well and bloom freely in a warm conservatory. The colour is not so rich as in *B. speciosa*, being of a bright pink shaded with lilac.

"A third *Bougainvillea* in my possession bids fair to bloom in the spring, having all the requisites of roots and branches well matured in an 11-inch pot.

"*Swyncombe Gardens.*"

"J. DANIELS."

WINTER-RIPENED GRAPES.

I OBSERVE that my friend Mr. Tillery gives winter-ripened Grapes a back-handed slap in his article in your last Number; first, because he considers it unnecessary to have them when old Grapes can easily be had; and in the second place, because forcing Vines so early as to have the fruit ripe in January weakens them, in consequence of their not getting a proper winter's rest. He thinks that to have Grapes ripe in March, so as to shake hands with the old ones before they are over, is early enough.

My own experience in this matter runs completely counter to the substance of the above paragraph. To the first objection I reply that, where there are plenty of vineries, it is desirable to force one, so as not only to have ripe Grapes on New Year's-day, for the mere sake of having them on that day, but also to be able to garnish both the old and the new Grapes with Vine leaves. These new Vine leaves give old plump Grapes all the appearance of new ones, and the dessert-table a fresh-looking and summer appearance that nothing besides can; and I would strongly recommend that where a vinery cannot be spared for early forcing, it is worth while for the leaves alone to have a Vine brought into some hot corner in early autumn.

To the objection that forcing Grapes so as to have them ripe in January exhausts the Vines more than having them ripe in March I demur, as being opposed to all my experience. I consider Vines cannot be rested in August and September any better, if so well, as in June and July; for be it remarked, if Grapes are to be ripe in March, forcing must begin on the 1st of October.

I will now detail what I have found in practice to be the case. In the year 1855 I cleared out and replanted all the vineries here, except one that I thought would give some fruit till the young Vines came into bearing. Of this one I raised the roots, and laid them in new soil, and they bore fair crops of Grapes, which ripened in April and May. I determined to get rid of the Vines in 1860 on account of their being unsightly, and pruned on the old long-spur system. This being my intention I filled the house in August with a lining of leaves and dung, so as to throw heat into the outside border, where their roots were then exclusively. They broke freely in September, and we cut the first dish off them on January 1st, 1860. As it was still my intention to do away with them as soon as their crop was cut, I made free with their leaves for garnishing the dessert. In the meantime my employers and others at their table thought the flavour of the Grapes so much superior to Lady Downes' and West's St. Peter's, and admired them so much that I resolved to have another year's crop out of them.

I pruned them early in July; they broke naturally on the 15th of August, and we cut again on the first day of this year; the three bunches weighing 3 lbs., and the crop double what it was in 1861, the wood much stronger, and it is now thoroughly hard and ripe, and they are likely to get a respite for another year.

It will be necessary to bear in mind that Vines started in August have three months of comparatively fine weather before them in which to expand their foliage, and do a deal of their work; whereas, those started in October, to be ripe in March, have the dreary part of the year alone to grow in. The house we force here to come in in March and April was not so good in 1861 as in 1860, and will, judging from its present appearance, not be so good this year as last, and it has received more care and attention than the one that was ripe on the first day of the year.

There is something that appears to me very remarkable about the Grapes we have ripened here in January. In the first place, they colour as black as sloes; their skins are thinner than the same sort of Grapes in August (they are Black Hamburgs); but what surprises me most is that a berry which is green to-day and black three days afterwards has no trace of acid in it, is perfectly sweet and well-flavoured. I send you a small bunch from the cool end of the house, where some of the berries are still green, and you will find that those berries that are only changing colour are, nevertheless, sweet. Now, it is well known that in summer a Grape has to hang a fortnight after it is black before its acid is got rid of, and its flavour is up. Perhaps some of your other correspondents may be able to account for these facts, or state if their own experience confirms mine. I may remark that a current of air, previously heated, has been allowed to pass into the house night and day since forcing begun; but this takes place in the case of Grapes ripened in August, though, as a matter of course, it does not require to be heated artificially in summer.

The rapidity with which they get their flavour seems very puzzling to us who have considered sun absolutely necessary to produce flavour, and when it is considered that since the Grapes in question were thinned they have not had fifty hours' sun if it were all put together, so dark, damp, and foggy has been the winter here up to this date.

Dalkeith Park Gardens, January 13th.

W. THOMSON.

[The "small" bunch alluded to by Mr. Thomson was received on the 15th of January. It weighed 1 lb., and measured 9 inches in length. The berries were well grown, well set, and splendidly coloured, with the exception of those at the end, three of which were green, and three more in various shades between green and black. The berries that were perfectly coloured were delicious in flavour, and the skin very tender; those that were of an intermediate colour were sweet, but not melting in the flesh, and those that were green were acid. This is the most masterly example of Vine forcing that has yet come under our notice. The bunch is as good both in size and flavour as could be desired in August.—Eds. F. and P.]

FANCY PANSIES.

THE old familiar stereotyped forms of Pansies, consisting of white-ground, yellow-ground, and self varieties, with which we have been familiar for about twenty years, run a great risk of finding a powerful rival in popular opinion in the new and pleasing forms recently introduced under the designation of Fancy or Belgian Pansies. These are now fast approaching the circular form, combined with texture and substance, which the stern laws of the florist demand before the Pansy can be admitted into their circle. Whether florists will ever recognise the Fancy Pansies remains to be seen, so completely do they set at defiance all recognised rules with regard to colouring; but as all do not

view flowers with a florist's eye, and look more to a diversity of pleasing colours, combined with form. In this popular flower, we venture to predict for Fancy Pansies a large amount of popularity, and their recognition as a florists' flower at the exhibition table. As yet they have not been seen in perfection, the varieties already in cultivation being somewhat limited and in the hands of a few, and as yet this flower is in its infancy. That a great improvement will speedily be effected we do not for a moment doubt, for we know that one extensive cultivator bloomed nearly two thousand seedlings last summer, from which a selection of about sixty very fine kinds have been selected for trial this year, many of them of beautiful shades of colour and with eccentric markings, quite novel in the Pansy. To the French florists belong the merit of effecting a marked improvement in this class of Pansies; for four years since their best kinds were *Eva*, *Bobo*, *Floribunda*, *Cerberus*, *Cœrulea alba*, *Eckard*, and others which are now worthless. These were followed by *Prince Imperial*, *Ali Bey*, *Parpaillott*, *Miracle*, *Agnes Sorrel*, *Napoleon III.*, and *Masaniello*, all of which are still good; and other kinds not worth growing. These kinds showed plainly that considerable headway was being made, and were followed in 1860 by *Belle Esquermoise*, *Louis Miellez*, *Distinction*, *Leviathan*, *Princesse Mathilde*, *Michael Ange*, *Dandie Dinmont*, and *Belle Lilloise*, all raised in France, and decided acquisitions. Here, however, the mantle of the French growers seemed to fall; for with the exception of *Octavie Demay*, and *Næmi Demay*, none others were introduced from France or Belgium in 1861, and these two varieties were more remarkable for novel colours than an advance in form. This probably arose from the death of Mr. Miellez, the well-known florist of Lille, who died about two years since. In the meantime the English florists have taken this flower in hand, and one well-known grower in the midland districts has devoted great attention to it, he being the first to bring it into popularity, and who for three years has been saving seed from the finest kinds, and has already introduced *Princess Alice*, *Donald Beaton*, *Etoile du Nord*, *Tiger*, and other fine kinds. A well-known firm in Scotland is also devoting much attention to them.

The Fancy kinds differ from the English strains, in the absence generally of borders, and are mostly blotched or otherwise fantastically marked; they possess enormous central blotches, and almost endless shades of colour.

Although the fancy Pansy will become very popular, it will never displace the old favourite English forms which still hold a strong position with florists, and in which great improvements have been effected within our recollection. We were Pansy-growers nearly thirty years since. At that time *Ajax* and *Duchess of Kent* were very popular; and *Cyclops*, *John Bull*, *Louis Philippe*, *Maid of Athens*, *Miss Schultz*, *Monarque*, *Midas*, *Pan*, *Princess Victoria*, *Queen Adelaide*, *Reform*, *Regina*, *Requiem*, and *Selim* were our best. Are any of these still in existence? These were soon followed by improved varieties, amongst which was Silverlock's *Black Knight*, sent out by Mr. Silverlock, a nurseryman at Chichester. About this time Mr. Thomson, of Iver, near Uxbridge, became the great Pansy leader, and introduced many first-class kinds in their day. At the same time a near neighbour of his, Mr. Hale, devoted considerable attention to the flower, and introduced *Monarch*, and other kinds which attained great popularity. A brighter luminary in the neighbourhood of Uxbridge, however, soon eclipsed both growers—Mr. Charles Turner, first at Chalvey, and afterwards at Slough, having been the greatest grower of the day, until four or five years since, and to whom we have been indebted for many first-class kinds. The home where the Pansy, however, luxuriates is in the cool soil and more humid temperature of the midland and northern districts, and that the Scottish florists soon found out; for not many years since our

old friend, Mr. Downie, of Edinburgh, took the Pansy in hand, and has done more for it than any man living, except Charles Turner. The firm of Downie and Laird stands as honourable sponsors to a great many of the finest flowers in cultivation; and we need only mention the names of Dickson & Co. (the honour of raising their flowers belongs to Mr. Alexander Tait, their foreman, and a worthy florist), Handasyde, Grieve, White & Sinclair, Paton and Small, Middlemas, Paul & Co., Jamieson, and other well-known growers. The midland districts of England have also turned out some good flowers, and judging from the great number of cultivators of this popular flower throughout the manufacturing districts, many more will issue from it.

If any person should imagine that the Pansy is declining in popularity, they have only to take a tour northwards of London during the blooming season, and at the period of the autumn shows to see to the contrary; and if further proof is wanting, let them mix with the dealers, and ascertain the demands, and witness the stock for a supply. The increasing number of new kinds also shows that the glories of the Pansy are not on the wane, for last year nearly one hundred new kinds were sent out by various growers.

Shipley Nursery, Yorkshire.

W. DEAN.

ON THE INFLUENCE OF SOIL AND CLIMATE ON PEARS.

ALL our hardy fruits are more or less influenced by soil and climate; and, as these circumstances vary to a very considerable extent in this country, we find, as naturally may be expected, that the character and quality of fruit produced in different districts present marked and peculiar features. Pears are more affected by the circumstances of soil and climate of the locality in which they are cultivated than any other fruit. The importance of gaining additional information on this interesting subject is, I believe, fully appreciated by the Horticultural Society, as it was by the defunct Pomological Society. I think I may venture to say that the information we at present possess is not of that precise and definite character that would justify us in assigning to particular districts their appropriate and determined varieties of fruit; and it is to enable us to do this with some degree of accuracy that I venture to open the subject in the pages of a work devoted to pomology, and to solicit the co-operation of my fellow-labourers in forming a pomological map of the country, so that persons desiring to plant fruit trees, may readily obtain information to guide them in the selection of appropriate varieties for the part of the country they may happen to reside in.

I am more inclined to assert the importance of extending our information in this branch of horticultural knowledge, by often hearing complaints of the inferior quality of Pears of the present day; and it has happened in one or two cases that those who have expressed this unfavourable opinion have incurred the expense of purchasing new Pears from Guernsey and France, and, expecting a great deal, have been, as might be imagined, wofully disappointed. They were unaware of the fact, which cannot be too generally known, that a particular kind of Pear may be excellent cultivated in France or Guernsey; but when grown in many parts of this country is often insipid and worthless.

This matter commends itself to the consideration of nurserymen whose interest it is to supply their customers with fruit trees suited to the various localities for which they may be required. Many eminent men in the trade have felt the necessity of adding to their descriptive account of the varieties of Pears advertised in their catalogues, particulars, as far as their information

extends of the aspect, soil, and locality, most suited to the different sorts; while others in their lists merely relate the marvellous excellencies of the kind for sale, so that an amateur suffers a pleased sort of perplexity in selecting only a dozen varieties from a mass of sweet, juicy, melting, aromatic, delicious kinds with tempting names, which figure in modern catalogues.

It will be perhaps sufficient on this occasion to present two practical illustrations of the influence of soil as well as the allied influences exerted by distinct geological circumstances, and local peculiarities of climate on the quality of Pears; for this purpose I will cite Belvoir and Chilwell.

At Belvoir, which is in the north-midland division of the country, the natural soil is clay, and belongs geologically to the upper lias; the surface has been modified by cultivation, and presents the appearance of a strong dark loam. The garden is about 237 feet above the sea, and distant from it about fifty miles. The average rainfall of the district is about 24 inches. Of the more common sorts of Pears which can be successfully cultivated at Belvoir, either trained to walls on S.W. or E. aspects, I may enumerate Jargonelle, Poir Pêche, Marie Louise, Bonchrétien, Orpheline d'Enghein, and Louise Bonne of Jersey, Knight's Monarch, Winter Nelis, Beurré Rance, and Easter Beurré, on either of the aspects named, and as standards.

The trained Pears occasionally good, but in some seasons very inferior, are Glou Morceau, Sabine, Fortunée Belge, Napoléon, Beurré d'Amanlis. Of those sorts which have never proved good I may mention Passe Colmar, Duchesse d'Angoulême, Chaumontel, Langelier's Beurré, Grosse Calebasse, Beurré Diel, and Ne Plus Meuris. I might extend this list by including Pears of recent introduction; but those I have cited will serve to illustrate my argument.

At Chilwell, in Notts, in the nurseries of Mr. Pearson, the soil is a sandy loam, river drift, derived from and resting on the New Red Sandstone formation. There is a greater annual fall of rain, owing, perhaps, to the neighbourhood of the Trent; but the excess is hardly more than an inch. The distance between the two places is about twenty-five miles.

The characteristic Pears which ripen on standard trees at Chilwell, and are good, are Aston Town, Autumn Bergamot, Welbeck Bergamot, Beurré d'Amanlis, Williams' Bonchrétien, Comte de Lamy, Louise Bonne of Jersey. Pears which ripen in fine seasons only are Marie Louise and Napoléon. Pears which are never good at Chilwell are Knight's Monarch, Beurré Diel, Beurré Rance, Glou Morceau, Easter Beurré, Ne Plus Meuris, Beurré de Capiaumont.

Contrasting the two places, it will be seen that sorts which in one place are excellent are in the other worthless, and yet a distance of a little more than a score of miles separates the two! I think that nothing more conclusive need be cited to prove the great advisability of pursuing inquiries into the really interesting question of what is the best soil and climate, or in what way can these be modified to suit that best of all hardy winter dessert fruit, the Pear.

Belvoir.

WILLIAM INGRAM.

[This is a subject we cannot press too earnestly on our readers. It is one on which depends the success of all our pomological experience; and until we arrive at conclusions affecting the whole country, based upon the example here so ably laid down by our talented correspondent, it is in vain to attempt planting fruit trees to any extent with the sure expectation of reaping the full benefit of our labours.—Eds. F. and P.]

WINTER-FLOWERING PLANTS.

WHEN visiting some of our finest gardens at this season of the year I have frequently had an apology proffered for the comparative absence of flowering

plants, especially in the stove department, by quietly saying, "This is a dull time of the year, and there are so few plants that will bloom now. I wish you had been here two or three months ago." Granting all this, still much can be done with the plants at command. Unfortunately, the useful plants are not cultivated in sufficient quantities to produce effect. We do not require a Kew collection for this purpose, but, on the contrary, a few plants well selected. I am thoroughly convinced that the plant-houses here are more effective in December and January than any other two months in the whole year. I will here describe a few of the most important that are grown by the hundreds. *Poinsettia pulcherrima* and *alba*, with their crimson and white bracts. *Linum trigynum*, rich golden yellow; a profuse bloomer, and most effective. *Sericographis Ghiesbreghtii*, fine crimson flower, very graceful. *Justicia speciosa*, an old and valuable subject, with its colour peculiar to itself. *Goldfussia isophylla*, light lavender colour. *Thyrsacanthus rutilans*, from 1 to 7 feet high, with its pendant racemes of scarlet flowers hanging to the surface of the pots. *Begonia nitida*, *Sandersii*, and *hydrocotylifolia*. *Æschynanthus grandiflorus* and *Lobbianum*. *Rogiera cordata*, compact bush; large trusses of pink flowers 6 inches in diameter, and as fragrant as the old well-known *Luculia gratissima*. *Torenia pulcherrima*, most beautiful plant for suspension-baskets, alternately with the *Æschynanthus* above. *Euphorbia jacquiniæflora*. *Eranthemum pulchellum*. *Heterocentrum roseum*. *Calla æthiopica*. *Gesneras oblongata*, *cinnabarina*, and *zebrina*. *Impatiens Hookeri*. *Meyenia erecta*, one of the finest winter plants we have, blooms profusely; few gardeners, I am sorry to say, will indorse this remark. *Gardenia citriodora*, flowers small, fragrant, and thickly set on the branches. *Cannas Warczewiczii* and *nudiflora*, their foliage being a great acquisition. *Eucharis amazonica*, a charming bulbous-rooted plant, increased by suckers, and should never have a pot exceeding 4 or 5 inches, as much of its success depends upon being thoroughly pot-bound, and by a little care it may be had in bloom eight months in the year. The texture of the flowers is of such firm substance, they are of long duration. It is a perfect gem, and purity itself. Thanks to M. Linden.

We have also a good miscellaneous collection, and many of them in bloom.

Creepers for the roof on rafters.—*Thunbergia laurifolia* and *Hexacentris mysorensis*, nothing can excel when well done trained alternately. It is only under such circumstances that they can display their magnificence.

Epiphyllum truncatum Ruckerianum, *E. truncatum Bridgesii*, *E. truncatum spectabile*, *E. truncatum violaceum*, *E. truncatum Salmonii*, are all beautiful in the extreme, especially as standards and half-standards.

The bush plants are one mass of flower thoroughly enveloping the pot, but do not show themselves to advantage.

The fine-foliaged plants are grown extensively in pits by themselves, and amongst the most useful for decorative purposes in this interesting class of plants are the *Crotons* and *Dracænas*.

Trentham, Staffordshire.

A. HENDERSON.

THE FIG.

THE Fig, when protected with a glass covering, is, perhaps, next to the Vine, one of our most luscious and prolific fruits. There are many fine Fig trees against walls, old buildings, and warm corners in this country, and some otherwise protected by covering or thatching in various ways, that, owing to our variable and very uncertain seasons, particularly the last two, get so punished

that their production of a crop of well-ripened fruit is so uncertain they do not make a satisfactory return scarcely once in seven years. If the fine old Fig trees we see about were covered over with glass, the result would prove most satisfactory. If their heads are high, the glass covering need not be so. Run a few posts and rails, either of wood or iron, towards the middle or front of the structure, and draw their heads to it. Underneath would form a shady avenue, the pleasure and beauty of which can only be appreciated when walking under them when covered with beautiful luxuriant foliage and loaded with fine fruit; which can be produced from May to November in regular succession by attending to the following simple practice.

If the Fig tree is too luxuriant, cut a trench round it a few feet off to the depth the roots run in the soil, cutting them off as you proceed; fill the trench with stones, brickbats, or any kind of cometable rubble, concreting it together as you proceed with lime and sand; and by pinching out the points of every shoot as soon as four or five joints are made throughout the summer season, a succession of fruit in every progressive size will be the result. Thus a sure succession of fruit may be obtained throughout the summer.

Bicton.

JAMES BARNES.

EARLY YORK PEACH.

WITH AN ILLUSTRATION.

FOR very many years the Red Nutmeg and the Early Anne were the only two Peaches which were cultivated for their earliness in this country. The former is a small magnificent little thing, not larger than a moderate-sized walnut; and, though well-enough flavoured, has little more than its earliness to recommend it. The Early Anne, though certainly larger, is not much more worth growing, as it rarely acquires that richness of flavour that is requisite in a good Peach; and is very apt, in some circumstances, to become mealy.

The Early York, though not earlier than either of these, is at least as early as Early Anne, and infinitely superior to it in every respect. It was introduced a few years ago from America; and, after being grown for some time in this country, has proved itself to be a variety admirably adapted for our climate.

The fruit is of medium size, roundish, inclining a little to ovate, and marked on one side with a shallow suture. Skin almost smooth, being covered with a very delicate down. On the shaded side it is of a yellowish-white colour, strewn with a few minute dots of red; and on the side next the sun entirely covered with a dark red cheek, which extends considerably towards the shaded side. The flesh is of a dull pearly white, very tender, melting, and juicy; juice abundant, very rich, and with a brisk, lively flavour. It ripens in the beginning and middle of August.

The tree is a good grower, very hardy, and an abundant bearer. It possesses a very vigorous and healthy constitution; and as an instance of this, we may state that during that very cold, wet, and ungenial season of 1860, we saw a tree in the Sawbridgeworth Nursery, growing as an open standard and bearing fruit, which, even under such unfavourable circumstances, ripened very respectably. The flowers are large and rose-coloured, and the leaves are serrated and without glands.

There is a variety called Large Early York, which must not be confounded with this.



Early York Peach.

Day & Son, Lith^{rs} to the Queen.

A VISIT TO THE ROYAL BOTANIC GARDENS, KEW.

WHEN the heavy fog is hanging about our city streets and our gas-bill is getting enormously long (for one cannot see to read or write without artificial light), and when our friends from the country tell us of bright sunshine and fresh air existing within an hour or two's ride of us, it is difficult to sit still and not try a few miles run by rail. We were getting quite low-spirited the other day, and this induced us to increase the finances of the South-Western Railway by the addition of a unit to the middle money column of their great account-book. In return for this we were ushered into a second-class railway-carriage, and hurried off to Kew.

Soon the beautiful wrought-iron gates were in front of us. We entered the first house—a square one—and found the four angles filled with gigantic tree Ferns—*Cyathea medullaris*, *Dicksonia antarctica*, and *Alsophila australis*. These are waiting for the better accommodation they will receive as soon as the great winter garden is finished. *Gunnera scabra* has been found such an effective plant for out-of-door decoration on account of its gigantic rhubarb-like leaves, that young specimens have been planted in several conspicuous places. We found them covered with a hand-glass, over which, on frosty nights, a mat is thrown.

The great tropical fernery has this season been painted and repaired. The plants are looking as well as ever, but they are terribly crowded; this is a very good fault, and one which will soon be amended. In front of the old fernery, and between the show-house and that devoted to Heaths, a new house is in course of erection; in this the larger tree Ferns and some other large-growing kinds will be arranged. The house will not be much more than 30 feet square, the walls about 15 or 18 feet in height, having four upright lights on each side, and the intervals filled up with ornamental brick piers. It is span-roofed, and in the middle will give sufficient head-room for the tree Ferns for some time to come. To return to the old fernery. We noticed that the beautiful set of filmy Ferns has recently been increased by the additions of some very beautiful and interesting species of *Trichomanes* from Trinidad. The most showy, perhaps, are *Trichomanes anceps*, making broad flat fronds 18 inches or more in length, the little cups bearing the sporangia hang from the under side like miniature bells. *T. floribunda* has long pinnatifid fronds which are almost transparent; *T. trichodea*, growing on an old stem, has fronds divided into hair-like divisions. *Hymenostachys elegans* is very like a *Trichomanes*, but it is put into another genus because the fertile fronds are unlike the sterile ones. They are narrow, and bear a line of cups on either side; the veins in the sterile fronds are reticulated, while in *Trichomanes* they are always free. In a little glass case near the centre of the house we noticed some new importations from Ceylon; they were *Helminthostachys dulcis*, a *Botrychium*-like Fern, common in the East Indian rice-fields, and a very pretty little tree Fern called *Cyathea sinuata*, the stem of which is not thicker than a man's finger. We give also the names of a few others, all of which are very distinct from anything already common, and all well worth growing—*Cyrtomium caryotideum*, and another species from China, not yet named; *Gymnogramma trifoliata*, *Cibotium princeps* and *C. Cummingii*, *Polystichum squarrosus*, *Microlepia hirsuta angusta*, *Litobrochia podophylla*, and many others.

In one corner of the Heath-house we noticed a collection of plants recently imported from Japan; most of them have not yet flowered, and therefore their specific names have not yet been attached to them. *Serissa foetida*, a very pretty variety of this well-known old plant, having a narrow margin of white, and a white line along the centre of the leaf; it is called *marginata*. *Spilanthes oleracea*, a yellow-flowered composite, used in Japan as a pot-herb. A new species of *Rhynchospermum*, having smaller narrower leaves than the old *R. jasminoides*. Several kinds of Oak, which may prove to be new. A very dwarf kind of *Canna*, which has its flower within a foot of the surface of the soil; will be very useful for many purposes. A new kind of *Ardisia*, the fruit of which is of a brighter colour than that of the species usually cultivated. Some young plants of *Rhus succedaneum*, the Japanese Wax tree. *Thujopsis dolabrata*, which is now becoming a general favourite; and the variegated variety, which, from the distinctness of its marking, will stand even higher in public estimation. In one of the other houses we noticed a very pretty variegated *Podocarpus*, and a *Dammara*, the oval leaves of which were striped with pure white: the latter is a particularly beautiful plant, and will be invaluable for the decoration of a cool conservatory. *Retinospora obtusa*, is a lovely little Thuja-like Conifer; and there were some other members of the family, which are at present too young for us to form an opinion of them.

The show-house we found quite as gay as could be expected at this time of the year. There were *Chrysanthemums*, both of the large-flowered and Pompon varieties, *Salvia splendens*, *Primulas*, *Amaranthus*, *Lantanas* of several kinds (very useful at this time of the year), *Bouvardias* (the same may be said of these, they are seldom properly grown; the best way is to plant them out in spring, keep them pinched during summer, and lift and pot in autumn); *Solanum pseudo-capsicum*, very gay with its bright red fruit; *Veronica Andersonii*, *V. violacea*, and some other kinds; *Ageratums*; *Tritonia aurea*, very striking; and a few

specimens of a very curious plant called *Canarina campanula*, with large orange-coloured, bell-shaped flowers.

The plants in the Cactus-house looked as grotesque and curious as ever. One of the *Aloes* (*Agave glaucescens*) was just coming into flower. This is a very distinct kind, it has a stem 3 or 4 feet high, and its flower-stem is a simple spike, which while young grows very rapidly—as much as 6 or 8 inches a-day sometimes. Some of the climbers in this house were very gay. *Passiflora kermesina* was flowering well; this is one of the best sorts for a warm conservatory, while a kind called *P. cœrulea racemosa* is the best for a cold house—it is always in flower. Some of the *Abutilons* are capital plants for training up a rafter, their large, drooping, bell-shaped, orange flowers having a very graceful appearance.

We were too late to see the *Victoria* in flower, though it had been blooming well in both of the aquariums. The old aquarium is filled with foliage plants, which look well at any season of the year, and at both ends of the house was a fine group of Pitcher-plants. In the little stove adjoining we found some nice things in flower. *Gesnera cinnabarina* is, both for flower and foliage, invaluable at this dull season; it is one of the best things that have been imported for many a year. *Gesnera Cliftonii* is in the way of the old *G. zebrina*, but not superior to it. In the centre of the house stood a magnificent specimen of *Cyanophyllum magnificum*, and near it the two other species (*C. speciosum* and *C. assamicum*), but neither of them are equal to that first named. There were several nice Orchids in flower. We give a list of the most showy of them, as it may be useful to some of our readers who need flowers at this time of year. *Odontoglossum grande*, *Miltonia spectabilis*, *M. Morelliana*, *Epidendrum vitellinum*, *Cattleya labiata*, *Sophranitis grandiflora*, and *Lycaste Skinneri*.

The magnificent collection of Aroids have been moved into the house formerly devoted to *Rhododendrons*. In a few years we shall, no doubt, find this family almost as great favourites with our countrymen as they are already on the continent. In the cool Fern-house, trained to wires between the rafters was a fine plant of *Lapageria rosea*, having nearly four dozen flowers fully expanded on the day of our visit.

In the new house put up last year for the growth of the quinine-producing plants, we saw many hundreds of young seedlings of *Cinchona succirubra*; these, which are about a twelvemonth old, are from 9 to 18 inches in height. This is the species which produces the "Red Bark," the most useful medicine in all cases of fever. There is almost an equal number of plants of *Cinchona micrantha*. This is an inhabitant of the mountains, and is therefore more difficult to grow than the other kind. The bark is scarcely inferior to that of the other kind. It is intended to forward these plants to India and Ceylon as soon as they are strong enough to stand the journey. Ground has already been prepared for them in several places, where it is probable they will soon form extensive plantations. Large numbers of plants have also been raised from seed on the spot.

There was as usual a number of plants of interest in the Palm-stove. The large Palms which were planted out about two years ago are thriving well, several of them were in flower; among these were *Cocos plumosa*, *Caryota urens*, *Sabal umbraculifera*, *Areca Baucrii*, *Scaevola elegans*. Most of these ripen their seed well. The stems of some of them are now clothed with climbing Aroids and similar plants, and the surface of the soil covered with a turf of *Lycopodium*. All this gives the plants a less artificial appearance, and this magnificent house now gives a better idea of a tropical forest than ever. The large plants of *Dammara orientalis* have produced several fine female cones. This is probably the first time this beautiful but tender Conifer ever produced seed in Europe. A fine plant of *Plumbago rosea*, about 3 feet in diameter, was flowering freely. There must be some hundreds of flower-spikes upon it, and in all probability it will continue in bloom for the next three months at least. The useful qualities of this plant have already been pointed out in our pages. The fine crimson flowers of *Stephanophysum Baikiei*, and the delicate pink ones of *Dipteracanthus Herbstii*, are always valuable at this season, and many specimens of each were in flower. Both of these plants are somewhat new; but we noticed another, which is quite as good in its way, and very distinct from everything else. It was *Barberia cristata*, it was introduced from India about a hundred years ago, but had long been lost in the country and was re-introduced from the Botanic Garden at Calcutta last year. The flowers are large and showy, being of a bright rose colour, and they are produced very freely. *Heterocentron mexicana* is a plant that should not be lost sight of by those who have to provide a few choice flowers during the winter. Among the climbers in this house we noticed several good things in flower. The old *Tecoma venusta*, flowers orange, shaped like those of an *Æschynanthus*; old plants flower much more freely than young ones. *Ipomœa rubra-cœrulea* (called also *Calonyction speciosum*), a beautiful, large, blue-flowered kind from the East Indies. *I. coccinea*, flowers small, but of a bright scarlet. The old crimson *I. Quamoclit* is not grown half so much as it deserves to be; it makes a capital pot-climber, for the leaves are as pretty as the flowers. *Clitoria Ternatea*, pea-shaped flowers, of a dark blue colour, and having a white blotch on the standard.

Great progress has been made in the construction of the new winter garden; the pillars are raised and the walls of the centre are completed. The two octagonal buildings, one on

either side of the centre compartment, are finished, and the plants already placed in them. Some of the ironwork not being ready for use, it has been thought advisable to stop the work upon the building for a month or two during the winter, but in spring it will proceed rapidly. During the winter the terraces will be thrown up, and the walks in the neighbourhood of the house completed! As the gravel for this purpose will be taken from the bed of the new lake, a double purpose will be served by this means.

DELTA.

GOOD SUGGESTIONS.

WHAT subscriber to the *FLORIST* and *POMOLOGIST* has not with pleasure read the amusing and instructive articles relative to Roses contributed from time to time by that veteran florist, the Vicar of Rushton? What Rose-grower has not read them without gaining some practical information upon the culture of the queen of flowers? Who, as an amateur, has not been guided in his purchases of Roses by his accurate description of the qualities of old and new varieties? I should say none. His ideas have been most valuable to those who have but a certain sum annually to spare in the purchase of novelties, and who, of course, cannot afford to be disappointed. It is not mere theory he gives, for all who saw the splendid boxes of blooms exhibited by him at the various shows during the past season, I am sure must have been gratified at the good practice he has made. I recollect the box shown at Kensington on September 11th. I believe I never saw a better twenty-four; it was before the Censors had been round, and I placed them where I ultimately found them (as the Vicar's man Will says), a first prize. Long may the Vicar and his man be spared to gain many more first prizes, and to contribute his interesting and valuable papers to the pages of the *FLORIST* and *POMOLOGIST*.

We are not all Rose-growers, however, and I have no doubt there are many subscribers to the *FLORIST* and *POMOLOGIST*, who as he receives his monthly part, turns over its pages (I generally do myself), in the hope of finding something said about his favourite flower, whatever that flower may be, as we each have our particular fancy. Now, this is what we want—to make its pages more interesting to the many; and so it would if growers of different flowers would give their ideas and experiences as the Vicar of Rushton does to Rose-growers.

Take the Dahlia for instance. Whatever spiteful names some people may choose to call it, it happens to be my favourite flower; and in my opinion, for exhibition and a flower for the people, stands second to the Rose, and will be a very long time before any other can be brought forward to displace it in public favour. Its cultivation is certainly not so easy as the Rose; the trouble, time, and attention required to produce blooms fit for exhibition are much greater, and the many new varieties being continually sent out make the labour very much more to an amateur (especially to many who have to depend upon their own treatment and observations).

Such are the claims by which I hope to engage the attention of some of your numerous correspondents, and I observe in the long list of eminent professional and amateur florists as subscribers, there are many who are competent (if they would oblige) to give good and valuable suggestions upon the culture of the different varieties of this popular flower; and, I hope contributors will be more liberal to the new series, not only with papers upon the Rose and Dahlia, but every other florists' flower.

Lower Easton, Bristol.

THOMAS HOBBS.

P.S.—It would be a great guide if raisers of good varieties would state at the time they are sent out the treatment they had used to produce fine and good blooms we frequently see exhibited as seedlings, for I have no doubt there have been many excellent sorts condemned through the particular treatment they required not being known.

TRANSPLANTING LARGE TREES.—When large trees are transplanted from a warm or sheltered situation to one more exposed, they frequently suffer by the change of climate, and become what is called *hidebound* and *stunted*, remaining for years without making much growth. In our own practice, we invariably wrap the stems and larger branches with hay-bands or moss; and in some cases have also tied the spray of the spruce or fern amongst the branches, to break the force of the wind and afford the trees shelter for a season. By keeping the moss or hay damped the ensuing spring, our trees have generally started away freely; whereas, neglect them the first year and they will stand still for years.—G. F.

AWARDS OF THE FLORAL COMMITTEE OF THE ROYAL HORTICULTURAL SOCIETY.

THE awards made by this Committee during the former part of the past season were recorded in the concluding pages of our former series. We here resume the subject, and in the following memorandum record the whole of the awards which have been made by the Floral Committee since last July—a period, therefore, including the whole of the Hollyhock, Dahlia, and Chrysanthemum seasons:—

AGAVE AMERICANA ELEGANTISSIMA.—November 12, Mr. Bull, Chelsea.—A very finely marked variety of American Aloe, in which the leaves are green in the centre, with a broadly variegated margin of creamy white, streaked with greyish-green.

ALOCASIA MACRORHIZA VARIEGATA.—October 8, Messrs. Veitch & Son, Exeter and Chelsea.—A large, bold-looking, and finely variegated stove perennial, subarborescent in habit; the leaves marked out with bold blotches and segments of creamy white, and mottled with greyish-green.

ALSOPHILA GLAUCA.—November 12, Messrs. Veitch & Son, Exeter and Chelsea.—An elegant tree Fern from the Philippine Islands. Its large compound fronds glaucous beneath, and the stem whitish with the scales that clothe the bases of the stipes. It is the same as *A. contaminens*.

ANÆCTOCHILUS BULLENII.—August 27, Messrs. Low & Co., Clapton.—A fine Bornean variegated stove Orchid, with the leaves ovate-lanceolate, dark bronzy green, marked with three longitudinal bold distinct stripes of coppery red.

ANÆCTOCHILUS SP.—October 8, Messrs. Osborn & Son.—A very pretty dwarf variegated stove Orchid, with ovate leaves of a deep bottle green, marked with numerous bright silvery-lined angular spots.

ANGRÆCUM SESQUIPEDALE.—December 10, Messrs. Veitch & Son, Exeter and Chelsea.—A noble stove epiphyte, of Vanda-like habit, the distichous leaves glaucous, and the large, white, fleshy, ivory-like flowers, having a slender, tail-like spur a foot or more in length. It is from Madagascar, and was introduced by the Rev. W. Ellis.

ATHYRIUM FILIX-FEMINA FRIZELLÆ.—August 13, Mr. Bull, Chelsea.—A very remarkable and beautiful variety of Lady Fern, the fronds of which are reduced to less than an inch in breadth, and consist of small symmetrical fan-shaped pinnæ. It was found in Ireland.

BEGONIA SP.—November 12, Mr. Salter, Hammersmith.—A remarkable herbaceous species from Santa Martha, with green, obscurely angular-lobed leaves, 24 inches in length and 19 inches in breadth.

BOUGAINVILLEA GLABRA.—October 8, Mr. Daniels, gardener to the Rev. C. E. Ruck Keene.—A very handsome autumn-blooming cool stove climber, more slender than *B. speciosa*, with smoother branches, smaller leaves, and rather open panicles of rosy coloured bracts. It is hardier and more easily flowered than *B. speciosa*, which are its recommendations.

CALAMUS AUSTRALIS.—October 8, Messrs. Veitch & Son, Exeter and Chelsea.—A pretty, slender, erect, prickly-stemmed stove Palm with pinnated leaves, which are prickly along the ribs and margins.

CALCEOLARIA SUAVIS.—August 13, Messrs. Veitch & Son, Exeter and Chelsea.—A pretty dwarf, herbaceous, Chilian Slipperwort, with light purple-spotted flowers, which are very sweet-scented.

CHRYSANTHEMUM BESSIE.—November 6, Mr. Ingram, Frogmore.—A neat, full-flowered, Indian red Pompon, shaded towards the outside of the head with rose, and near the centre with yellow.

CHRYSANTHEMUM CARISSIMA.—November 6, Mr. Salter, Hammersmith.—A sulphury white, with fine, broad, incurved florets, full and well incurved. It was hardly enough developed.

CHRYSANTHEMUM CARISSIMA.—November 12, Mr. Salter.—A very excellent incurved variety with broad florets sulphury white, with a faint streaky tint of rose.

CHRYSANTHEMUM DUCHESS OF WELLINGTON.—November 12, Mr. Salter.—A fine light rose, full, and evenly incurving. A very first-class flower.

CHRYSANTHEMUM GENERAL SLADE.—November 6, Mr. Salter, Hammersmith.—A full incurved flower of a bright Indian red, with golden backs and yellow tips to the florets. The best variety in its class.

CHRYSANTHEMUM LADY H. ST. CLAIR.—November 6, Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh.—A very finely formed and incurved variety of a creamy white—the best white yet obtained. It is a sport from Queen of England.

CHRYSANTHEMUM MADAME HEINE.—November 12, Mr. Bull, Chelsea.—A large-flowered Pompon of free habit. The flower-heads full, pure white, and of a showy character.

CHRYSANTHEMUM SPARKLER.—November 12, Mr. Salter.—A small-flowered variety,

but very pretty. The flower-heads are very full and well-incurved, deep Indian red, with golden backs. It is a very lively sort.

CHRYSANthemum STRIPED QUEEN.—November 6, Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh.—A bluish white sport of Queen of England, the florets pencilled with purple streaks.

CONVOLVULUS MAURITANICUS.—August 13, Messrs. E. G. Henderson & Son, St. John's Wood.—A pretty dwarf trailing herb, with small oblong-oval hairy leaves, and moderate-sized pale greyish-blue flowers. It forms a good border or bedding plant in summer, and is well suited for suspended baskets.

CYPERUS ALTERNIFOLIUS VARIEGATUS.—October 8, Messrs. Veitch & Son, Exeter and Chelsea; and Mr. Bull, Chelsea.—A very graceful, dwarf, reedy stove plant, with both stems and their terminal drooping whorls of grassy leaves elegantly striped with white.

CYTOMIUM CARYOTIDEUM.—September 24, from the garden of the Society.—A fine hardy Indian and Chinese Fern, of bold appearance, having pinnate fronds with broad serrated pinnae, the terminal one unequally lobed at the base, as in the *Caryota* leaflet.

DAHLIA BLACK PRINCE.—September 11, Mr. Keynes.—A useful dark-shaded maroon, of average size.

DAHLIA BOB RIDLEY.—August 13, Mr. C. Turner.—A full maroon crimson, of fair outline, but rough.

DAHLIA CHARLOTTE DORLING.—August 27, Mr. C. Turner.—White, heavily tipped and shaded with bright light purple.

DAHLIA COUNTESS OF PORTSMOUTH.—September 11, Mr. Rawlings.—A creamy white tipped with bright rosy purple. A very pleasing variety.

DAHLIA CYGNET.—August 13, Mr. C. Turner, Slough.—A rather small, but well-formed and regular; deep blush, paler towards the centre.

DAHLIA DELICATA.—September 11, Mr. C. J. Perry, Birmingham.—A neat and compact pleasing variety, of a rosy fawn colour.

DAHLIA L'ÉTOILE.—August 13, Mr. Keynes, Salisbury.—A coarse, flat-formed, white striped with purple, which could only have been rewarded as a border flower.

DAHLIA GOLDFINDER.—September 11, Mr. Keynes.—A large chrome yellow, faintly tipped at the back with salmony rose.

DAHLIA HANDFORTH HERO.—September 11, Mr. J. Henshaw, Handforth, Manchester.—A neatly formed orange red.

DAHLIA MISS HENSHAW.—October 8, Mr. Henshaw.—A full and tolerably well-formed creamy white.

DAHLIA IMPERIAL.—August 27, Mr. Keynes.—A large and well-formed amaranthine purple. A very useful colour.

DAHLIA LORD DERBY.—September 11, Mr. Pope, Chelsea.—The finest variety produced this season. It is a bright crimson purple, of full size, and very finely formed, and has been so frequently exhibited that it must be a constant flower.

DAHLIA MAID OF BATH.—August 27, Mr. Keynes.—A symmetrical and chaste-looking white, faintly tipped with purple.

DAHLIA MARIA CARTER.—August 27, Mr. Keynes.—A white variety, heavily and gaily tipped with light rosy purple or lake. It was rewarded for its bright colouring.

DAHLIA MINNIE DODDS.—August 13, Mr. Dodds, Salisbury.—A pretty shaded rosy lilac, paler at the base of the florets, of medium size and depth; the centre rather low.

DAHLIA MRS. BUSH.—September 11, Mr. C. Turner.—A very pleasing bright rose.

DAHLIA MRS. BUSH.—September 24, Mr. C. Turner, Slough.—A first-class variety, commended on a previous occasion. Colour, a bright light rose, very beautiful.

DAHLIA MODEL.—September 11, Mr. C. J. Perry, Birmingham.—A medium-sized orange buff, of very fine form.

DAHLIA RELIANCE.—September 11, Mr. Rawlings, Bethnal Green.—A useful fancy flower, blush with purple stripes.

DAHLIA UNA.—August 13, Mr. C. Turner.—A bluish white tipped with rosy purple; the general outline good, but the eye rather low.

DENDROBIUM LOWI.—November 12, Messrs. Low & Co., Clapton.—A very handsome stove epiphyte, the flowers of which are buff yellow, marked on the lip with bold crimson lines, on which occur long, red, hairy fringes.

ECHVEVERIA SP.—September 24, Mr. Wicks, gardener to W. Wilson Saunders, Esq.—A handsome-looking succulent, not in flower, but having broad, obovate, apiculate, glaucous, purpureous leaves.

FUCHSIA HUGH MOLLON.—August 13, Messrs. Veitch & Son, Exeter and Chelsea.—A dwarf, vigorous, free-blooming, and showy decorative variety, with very large, pale pink, long-tubed flowers, having a large reddish-purple corolla. A variety of distinct character.

(To be continued.)

NOTES ON NURSERIES.

MR. W. PAUL, WALTHAM CROSS.—Our readers are doubtless aware that the old firm of Paul & Son is broken up, and that one of the late partners, Mr. W. Paul, so well and so favourably known as a writer on the Rose no less than as a cultivator of the queen of flowers, has formed a new establishment at Waltham Cross, his brother retaining the home-stead. This new nursery is in close contiguity with the Waltham Station, on the Cambridge branch of the Eastern Counties Railway, from which there is an entrance for the use of visitors. Although but a short time has elapsed since operations were commenced, nearly the whole of a very extensive area is filled with thriving nursery stock, amongst which Roses and fruit trees, which succeed admirably, seem to be regarded as specialties. The nursery extends from the railway to the Waltham turnpike-road, where the main entrance to the nursery, together with a commodious seed-shop and warehouses, are situated. From this entrance, extending across the nursery in a straight line to the railway, a distance of about one-third of a mile, extends a broad turf glade, flanked on either side by evergreens, exterior to which are two gravel paths for use in damp weather. Another glade skirts the railway at the extreme end of this glade, and at a right angle with it; and traversing the ground in the same direction as the latter, but some distance from it, is a broad gravel road passing between an avenue planted with specimen fruit trees trained to the pyramidal form. The soil and situation appear to be admirably fitted for nursery purposes, as the well-stocked quarters bear ample testimony. At this season of the year the more interesting objects are, of course, to be found in the houses; and here we were particularly struck with the preparations made for two subjects—the Rose and the Hyacinth, with both of which Mr. Paul appears to be bent on achieving some victories during the forthcoming struggles. The Hyacinths at the time of our visit, early in January, were all potted in 6-inch pots, according to the recommendations in Mr. Paul's bulb catalogue, and were pushing up with extraordinary vigour, the pots being plunged in coal ashes in the open air, under shelter of one of the houses. Of pot Roses, which were in-doors, and just undergoing their winter pruning, there was a formidable array of remarkably well-furnished and well-ripened plants, which can hardly fail to produce good blossoms in the course of the spring, and to take a prominent position at the exhibitions. Mr. Paul is a strong advocate for summer pruning in the case of these specimen Roses, which have, of course, to be nourished upon a limited supply of material; his object being thereby to husband the vigour which the amount of available food is capable of producing, and to direct it towards the strengthening of useful shoots, instead of allowing it to waste itself in forming such as are useless. This is, no doubt, sound practice so long as a plentiful amount of healthy foliage is retained. In one house, quite cold, designed for Tea Roses, in which the plants were put out last July, in prepared raised beds, the plants were doing admirably, some having made shoots 5 feet long in the course of last season. They were now at rest, and nearly dry. No doubt this house will furnish a sight worth seeing about next May or June. Roses were being grafted in very large quantities in the propagating-houses; the stocks were planted in large 60-pots. Mr. Paul is providing for this purpose seedling Dog Roses, to be used in preference to the stocks in common use. Of the young Roses thus in process of formation, there was a large supply of Mr. Paul's fine new H.P. Rose, Beauty of Waltham, which is figured in the "Rose Annual," and gained a first-class certificate last summer. We observed a fine batch in pots, under shelter, of the better kinds of Roses, provided for the spring demand. Of the new Roses raised on the continent, and as yet unknown, or but little known here, there was a fine collection; the better sorts, those, at least, which in Mr. Paul's judgment were likely to prove such, being grown, not singly or in pairs, but by half-dozens; so that we may look forward to see them favourably submitted to public notice at the exhibitions and meetings to be held in the course of the ensuing spring and summer.

MESSRS. LOW & CO., CLAPTON.—We were particularly gratified, on calling a week or two since at this well-known nursery, to find that a beautiful Indian Orchid, *Limatodes rosea*, which it has been the fashion to condemn as unmanageable, is really a lovely winter-blooming species, and one of the most useful plants of its class for decorative uses. We also found considerable variety amongst the imported plants which were then blooming, some being paler and others deeper coloured; some dense and some loose-spiked; some taller and some comparatively dwarf; the plants also presenting considerable variation in the shape of the lip. The most usual form had the flower-scape (which grows from the base of the pseudo-bulbs after the leaves have ripened off) about a foot high, terminating in a close spike of flowers, of a delicate pink, deepening into a ring of deep red at the mouth of the tubulose portion of the lip, which is pure white within. The lip is of a singular squarish-oblong form. A variety, called *superba*, was much deeper and richer in colour, a bright deep pink; but the spike was looser, and the flowers smaller, with a narrower lip. These flowers

last six or eight weeks at this season of the year; this, together with their lively and pleasing colour, and the facility with which the plants may be grown in small-sized pots, renders the *Limatodes rosea* one of the most desirable of plants for winter decorative uses, as we have already intimated. It appears that the plants have not generally been found very facile in the development of their flowers, but this is owing to an error of treatment; so that the *Limatodes* must be regarded as having been condemned for faults not its own. It is the habit of the plant, when the leaves ripen off, to push out its flower-scapes soon thereafter, and the proper course is to keep watering on till the flowering is over. Instead of this, it appears to have been the practice to withhold water, as is so commonly done when the leaves have died off, and in this way the flower-scapes have been literally starved to death. Messrs. Low have a fine lot of the rare Film Ferns, recently brought from Borneo by Mr. H. Low, jun., which are, for the most parts, additions to our garden collections, and comprise several new species; among the more striking of which are the following:—*Trichomanes superbum*, a fine, robust-growing species, with triangular, ovate, plain, broad-pinnated fronds, having a broad and well-marked wing down to the very base of the stipes; *T. setigerum* and *T. trichophyllum*, two pretty little species allied to *T. Pluma*, the former having the bristle-like segments of the linear-lanceolate fronds connected by a membranaceous web, and the latter having them distinct as in *Pluma*, but formed on a regularly pinnated plan, and lying in one plane, not dichotomously parted with the segments imbricated; *T. saxatile*, a triangular-ovate species, with prettily undulated fronds, and apparently a free-growing plant; together with some other species of this beautiful genus, several *Lindsæas*, and some other choice Ferns.—M.

FRENCH CHASSELAS GRAPES.—The first week in January I inspected a box of French Chasselas Grapes, packed in one of those shallow boxes which we so frequently see in Paris, and even in Covent Garden Market. What surprised me was the perfectly fresh state of the Grapes in question, which I should suppose must have been cut from the Vines for at least six weeks, perhaps longer. Can any of your readers inform me how they are kept? as they were much fresher than my own Muscadines retarded under glass, though inferior in flavour.—R.

CALENDAR OF OPERATIONS.

CONSERVATORY.

As the forcing-pit will now furnish abundant means for decoration, no specimens should remain here after their flowers begin to die away. Fresh flowers, healthy foliage, and tasteful arrangement are points which must be always kept in mind. Indian Azaleas should be introduced as soon as they come into flower; also Rhododendrons, Kalmias, and other American plants; also Hyacinths, Narcissus, Tulips, &c.; also plenty of tree Violets, Mignonette, and Lily of the Valley. When there are proper houses for stove plants, they should be only sparingly introduced here at this season, as it is difficult to do justice to them. Indeed, there is little necessity for it, as there are plenty of other plants suitable for the purpose. Look carefully over the plants daily and water only when necessary, but then give them sufficient to go through the soil. The mildness of the weather permitting a good deal of air to be given, and but little fire heat being required, the permanent plants will, in consequence, not yet be showing much signs of active growth. Do not excite them by any means, as the later they are in starting the stronger and better will their growth be. See they do not want for water. Give air when the weather permits. Maintain a temperature of 45° to 50° by night, and 60° by day, with an increase of 12° or 14° by sun heat. See that everything in and about the house is scrupulously neat and clean.

GREENHOUSES.

These plants ought to be in good condition now; the mild weather allowing plenty of air to be given, and but little fire heat being required. Do not exceed a night temperature of 40° in frosty weather. Attend carefully to the watering daily. Give plenty of air when the state of the weather permits; but guard against cold draughts. Towards the end of the month plants beginning to grow should be carefully potted and tied out as wanted. They should then be kept rather close for a few days until they begin

to start into the fresh soil. If not already done, get plenty of loam, leaf soil, peat, sand, &c., ready for potting.

STOVE.

All plants starting into growth should be potted at once. Remove part of the old soil from the balls, and use a compost of turfy loam, peat, leaf soil, and silver sand. See the pots are well drained, give them a steady bottom heat of about 75°, it is of more importance than top heat to start them into vigorous growth. Syringe daily, but do not give much water until they begin to root and grow freely. Keep the house rather close. Maintain a temperature of about 60° at night, and 75° in the day, allowing it to rise 10° by sun heat. Ventilate carefully. Pot a few *Achimenes* for flowering early; also, a few *Gesneras*. Start some *Gloxinias*.

FLOWER GARDEN.

Plant Roses; but if we have a continuance of mild weather, do not be in too great a hurry to prune unless it be some of the harder sorts. In open weather proceed with alterations as fast as possible in order to have everything complete, before "bedding-out" time. Look carefully over the stock of bedding plants, and if you see you are likely to fall short of anything, put them at once into a little heat to get cuttings from them. Cuttings of *Calceolarias*, *Verbenas*, *Lobelias*, *Petunias*, *Salvias*, *Ageratums*, &c., put in any time this and next month will make good plants before "bedding-out" time. *Pleasure Grounds*.—Plant trees and shrubs in open weather. Do not prune too soon, but wait until next month. If severe frost should set in, see that choice tender specimens are properly protected. Push forward alterations and all work that can be proceeded with.

FORCING.

FRUIT.—*Pine Apples*.—With the increase of light and heat plants in fruit will require a rather moist atmosphere and more water. Plants starting into

fruit must have a rather dry atmosphere and a steady bottom heat of at least 80°, with a temperature of from 65° to 70° by night, and 70° to 75° by day, with an increase of 10° to 12° by sun heat. Give a little air when the weather permits. Plants intended for fruiting next autumn and winter should be kept steadily growing. If the young stock have a bottom heat of 80° and are growing satisfactorily, do not be in too great a hurry to pot them. *Vines*.—Never neglect to thin the bunches as soon as they are fairly set, cutting off all that are not wanted; the crops will in consequence be finer and the Vines will not be unnecessarily exhausted. Maintain a moist atmosphere during the time the fruit is swelling until it begins to show signs of colouring, when a drier atmosphere will be required. The outside borders of the early-houses should be kept at a uniform temperature of about 70°. The inside borders should be well watered when they require it. Stop and tie down shoots in succession-houses. Keep a dry atmosphere while in flower, and a night temperature of about 65° for Hamburgs, and a few degrees higher for Muscats. Keep a moist atmosphere in houses that are breaking, and give plenty of air if the weather permits, always early in the forenoon, and close up early in the afternoon. Start late-houses, beginning with a night temperature of 45°. Keep a moist atmosphere. *Peaches and Nectarines*.—Do not exceed a night temperature of 55° until after the fruit is set, then raise it to 60° which will be sufficient until the stoning of the fruit, when it should be raised to from 65° to 70° by night, and to 75° during the day, with a rise of 10° or more by sun heat. After the fruit is set, syringe the trees twice daily with water the temperature of the air of the house, and keep a moist atmosphere the whole time the fruit is swelling, otherwise the red spider will be troublesome. Give plenty of air when the weather permits. Attend carefully to disbudding and tying down the shoots. See directions in last Calendar for late-houses. *Figs*.—As these advance in growth they will require large supplies of water. Syringe two or three times daily, and keep a moist atmosphere. When the shoots are five or six joints long, pinch out the terminal bud. Keep the temperature 60° at night, and 65° to 70° in the day. *Cherries*.—See these have a steady bottom heat and as much air as the weather will permit. Be careful in watering, and do not keep the temperature at night above 50° until the fruit are stoned. *Strauberies*.—Plants swelling off fruit should have a moist atmosphere and a warm temperature with good supplies of water. Introduce a fresh lot of plants once a fortnight. For treatment when first brought in, see last month's Calendar.

VEGETABLES.—*Asparagus*.—With the increase of light this will now come strong and fine, provided the bottom heat does not exceed 70°, and plenty of air be given. Make fresh beds to keep up a succession until it comes into use out of doors. *Rhubarb and Sea-kale*.—Keep up a succession as directed last month. *Kidney Beans*.—Sow twice during the month; pinch the tops of the shoots off to make them branch out; keep them near the glass, and attend to watering. Syringe to keep down red spider. *Carrots and Radishes*.—Sow on slight hot-bed. *Mustard and Cress*.—Sow once a fortnight. *Potatoes*.—Plant Ash-leaved Kidneys on a gentle heat in frames and pits. *Capsicums and Tomatoes*.—Sow a few in pots. *Cauliflowers, Lettuce, Celery, and Onions*.—Sow in pots or boxes, and put into a little heat; when up remove to a cool frame. *Tarragon and Mint*. Put in a few more roots for succession. *Cucumbers and Melons*.—Shift young plants into larger pots, and when fit plant out on well-prepared hotbeds. Sow for succession.

HARDY FRUIT.

Take advantage of fine weather to push forward the nailing of wall trees; see there are no overtight shreds; prune all descriptions of trees, thinning well the branches in trees that are crowded. As there is a great promise of blossom this season, the spurs should be well thinned out. Plant any time during the month when the weather is favourable, but the

earlier the better. Before planting see the borders are properly drained, and the soil is in a fit state, the roots striking into cold, wet soil, is the great evil with fruit trees in this climate.

KITCHEN GARDEN.

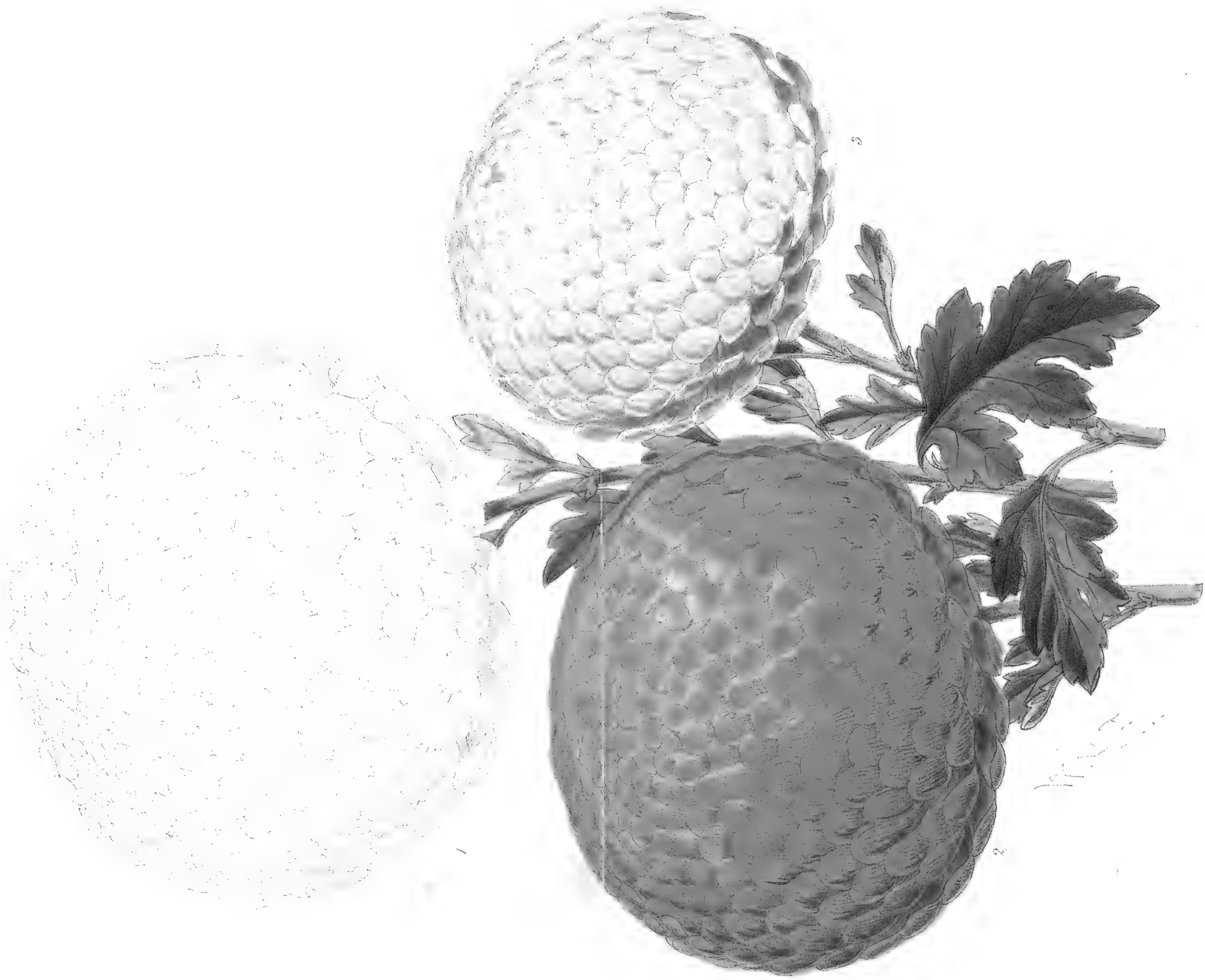
All operations, such as manuring, digging, trenching, &c., ought now to be in a forward state in consequence of the very long continuance of favourable weather. Take advantage of the present time to prepare Pea-rows, and all other stakes that may be required during the season. Do everything you can this month, as the succeeding ones bring plenty of work. When the land is in condition make plantations of H-rsradish, Jerusalem Artichokes, and Rhubarb. Plant Chives, Garlic, and Eshallots. Make fresh plantations of Balm, Mint, Tarragon, and herbs of all kinds. Plant autumn-sown Cabbages. *Peas*.—Sow, the beginning of the month, Dillstone's Early Prolific, Daniel O'Rourke, and Early Warwick. Towards the end of the month sow the Auvergne, Dickson's Favourite, and Champion of England. *Beans*.—Sow Johnson's Wonderful and Early Mazagan at the beginning, and again towards the end of the month. *Carrots*.—Sow a few Early Horn on warm borders. *Radishes*.—Sow Wood's Early Frame, Long Scarlet, and White Turnip, on warm borders. *Spinach*.—Sow some Round. *Parsley*.—Sow towards the end of the month.—M.S.

FLORISTS' FLOWERS.

The Cineraria.—Little can be said of these other than that recommended last month. Still continue to tie out as wide as possible, and let them stand thin and as close to the glass as convenient. Top-dressing will now greatly assist them; fumigate frequently, which will prevent the green fly attacking them. Be careful and remove every decaying leaf, as these are very apt to affect the main stem. Give all the air possible every favourable opportunity. Syringe now and then on bright mornings, and sulphur immediately on the appearance of mildew. Some may now be removed to an intermediate-house for early flowers. *Pelargoniums*.—As the season advances increase the heat a little, and attend with regularity to the tying out and training the shoots as they progress. It will be occasionally necessary to water more freely, a matter which requires careful attention. Avail yourself of every favourable opportunity to give air freely, and close sufficiently early in the afternoon to retain a little of the sun heat whenever that is possible. Plants which have yet to be finally shifted should have the operation performed without delay, and this is a favourable time for stopping those plants which you wish to flower late. Carefully avoid everything like crowding, and examine your plants often so that they may be kept free from insects and in all respects quite clean. Apply the same rules to the management of the fancy varieties with scrupulous care.—CHARLES TURNER, Slough.

ROSES IN POTS.—Continue to introduce to the forcing-house at intervals of about a month a portion of the reserve stock of Roses in pots, hitherto kept out of doors. Those introduced in December will be flowering now; those introduced in January will flower in March; those brought in now will flower from the end of March to the middle of April. It is a good plan with all forced Roses to remove the plants to a cooler house when the buds show colour, with the view of increasing the size and quality of the flowers. As the days lengthen a higher day temperature may be employed; if for any reason it is desirable to accelerate the period of blooming without injury to the plants or flowers; but a temperature of 40° or 45° by night is sufficiently high at this season. Syringe more copiously as the sun acquires more power. Fumigate as often as a live aphid is seen. Water with weak liquid manure so long as the plants continue growing. If mildew appear, dust the leaves with sulphur on both under and upper surfaces, and for this purpose the "sulphurator" is invaluable—no lover of Roses should be without one.—WILLIAM PAUL, Waltham Cross.





Chrysanthemums.

1. *Chrysanthemum* 2. *Chrysanthemum* 3. *Chrysanthemum*



Chrysanthemums.

NEW CHRYSANTHEMUMS.

WITH ILLUSTRATIONS.

THE past season has added several new Chrysanthemums of considerable merit to the varieties already in cultivation. Those we have the pleasure of representing in the accompanying plate are, in our judgment, the very best as well as the most distinct and desirable among them. We are indebted to Mr. Salter, of the Versailles Nursery, Hammersmith, and to Messrs. Downie, Laird, and Laing, of Stanstead Park, Forest Hill, and Edinburgh, for the opportunity of figuring them. They have severally been submitted to the Floral Committee of the Royal Horticultural Society, and have gained first-class certificates; and Lady St. Clair, the only one of them exhibited at Sydenham, received also there a certificate of merit.

The fine white variety named LADY H. ST. CLAIR (*fig. 1*), is perhaps the noblest Chrysanthemum yet obtained. This variety is stated to be a sport from Queen of England. Some remarkably perfect specimens of it were exhibited at Kensington by Messrs. Downie, Laird, & Laing, on the occasion of the Chrysanthemum Show held last autumn in the Horticultural Gardens—a show which we regret to find is not to be followed up by a similar one during the present season, but which we, nevertheless, hope to see revived in less pre-occupied years. The blooms produced on the occasion referred to were extra-sized, fully 4 inches in diameter, and upwards of 3 inches in depth, full to the very centre, creamy white and made up of broad florets, which were incurved so as to form a high globular mass. It was pronounced to be the best white variety yet obtained, and was certainly very chaste and beautiful in character.

Scarcely less meritorious were the blooms of GENERAL SLADE (*fig. 2*), shown by Mr. Salter, which is undoubtedly the best variety we yet possess in its peculiar colour—one of those indescribable intermixtures of red and yellow not uncommon in this family. The flower-heads, or flowers as they are commonly called, are of the largest size, made up of incurved florets, which close in to form a full convex crown. The colour is a fine coppery or Indian red, the florets golden-tinted at the back, and besides very brightly golden-tipped. Out of doors the plants are freely branched, growing about a yard high. This variety may be taken to represent the old Two-coloured Incurved, carried very far towards perfection.

The other variety we have selected for illustration is called DUCHESS OF WELLINGTON (*fig. 3*). This also was shown by Mr. Salter, and is a remarkably handsome and pleasing flower. The heads are of full average size, and of fine properties, the florets bold, evenly compactly and completely incurved, so as to form a full high centre; and the colour is a lovely rosy lilac, lighter and silvery at the back of the florets. It is something in the style of Lady Hardinge, one of Mr. Salter's fine varieties of last year, but is somewhat deeper coloured, and rather more compactly built. This novelty belongs to a class of colours which is particularly pleasing and effective, amongst the many dingy reds and purples which occur in the present race of Chrysanthemums.

It may be useful to record here some of the more remarkable novelties, which, in addition to the subjects of our illustration, made their appearance last autumn at the principal metropolitan shows. The following more particularly came under our notice:—

Acis (Salter). Pompon. Straw-colour, with yellow centre and reddish back. Full ranunculus-formed, and of good habit.

Apollo (Salter). Large-flowered Pompon. Dark plum-tinted chestnut red, with golden back. Florets stiff and incurved. Dwarf and free.

Bessie (Ingram). Pompon. Chestnut red mottled with yellow towards the centre, and shaded with rose towards the circumference, so as to look particoloured. Pleasing. Commended at Kensington; certificate at Sydenham.

Carissima (Salter). Sulphury white, faintly tinged and dashed with rosy lilac streaks, broad, well-incurved florets. Full size, very fine, dwarf and free. First-class certificate at Kensington.

Citronella (Salter). Intermediate. Light yellow, with broad slightly incurving florets; pleasing, but rather flat.

Dido (Salter). Intermediate. White, with sulphury tips, filling out well. Very dwarf and free, and an excellent pot plant.

Dr. Brock (Salter). Dull pale purplish-red, yellowish at the back. Large and incurved, but heavy-looking.

Draco (Salter). Coppery red. Free, bushy, and ornamental.

Ion (Salter). Intermediate. Pure white, with neatly incurved florets. Hardly full enough.

Lady Russell (Bird). White, the back of the florets of a rosy tint. Full, incurved, broad florets. Distinct, bright-looking, and very promising. Certificate at Sydenham.

Little Pet (Bird). Intermediate. White, tinted at the circumference with rose. Like a diminished form of *Vesta*. Compact, even, and very pleasing. Certificate at Sydenham.

Lord Ranelagh (Salter). Reddish-fawn or pale copper colour, with a golden tint at the back. Large, well incurved, and tolerably full. Very dwarf and free.

Madame Heine (Bull). Large-flowered Pompon. Pure white, of good form, free. Commended at Kensington.

Medora (Salter). Anemone Pompon. Light reddish lilac-rose, more or less quilled, and buff-coloured in the centre. A pleasing colour. Freely and openly branched, and effective for decoration.

Model (Bird). Dull light purplish-tinted coppery red. Florets incurved, but not even. Certificate at Sydenham.

Nil Desperandum (Bird). Dull light purplish-red, with coppery back and tips. Incurved, not over-full, and dull-looking. Certificate at Sydenham.

Queen of Anemones (Bird). Anemone. Rose colour, with brownish-golden centre.

Queen of Lilacs (Bird). Rosy lilac. Large, full, and incurved. A good flower. Certificate at Sydenham.

Rising Sun (Bird). Intermediate. Deep Indian red, with golden back. Full, stiff incurved florets. Resembles *Sparkler*.

Sparkler (Salter). Bright deep Indian red, with golden back. Rather small, but full, with stiff incurved florets. A pleasing variety, bright-looking in its class. In the way of *Madame Comerson*, but deeper coloured. Commended at Kensington.

Striped Queen (Downie and Co.). Blush white, pencilled with narrow but decided purple stripes. A sport from *Queen of England*, two stages removed. Commended at Kensington.

Those who grow *Chrysanthemums* as decorative plants, find it of some importance to know what varieties are best suited for pot culture. The specimen plants produced at the exhibitions may be taken as furnishing a tolerably safe criterion on this point. The best of the large-flowered varieties at the Kensington and Sydenham exhibitions last November, on the score of habit and bloom, were these:—

Prince Albert, plum.
Beauté du Nord, rose purple.
Alma, rose purple.
Julie Lagravère, deep crimson.
Madame Comerson, crimson red.
Mont Etna, deep coppery red.
Christine, light rose.
Golden Christine, fawn.

Yellow Perfection, golden yellow.
Chevalier Domage, bright deep yellow.
Annie Salter, light yellow.
Queen of England, blush white.
Defiance, white.
Vesta, rose-tinted white.
Trilby, white, with rosy edge and sulphury centre.

Of the Pompon varieties, the best-habited and most effective sorts were these:—

Salamon, rose purple.
Duruflet, rose.
Bob, crimson-red.
President Decaisne, white, shaded with dark red.
Mrs. Dix, white rosy tipped.
Cedo Nulli, white, with brown tips.
Surprise, deep blush.

Madame Rousselon, rosy blush.
Golden Cedo Nulli, yellow, with brown tips.
Général Canrobert, light bright yellow.
Cote d'Or, larger, bright pale yellow.
Andromeda, cream, with brown tips.
Madame Heine, larger, pure white.
Ninon, pure white.

The magnificent cut blooms of *Chrysanthemums* which excite so much admiration are, it is well known, produced by high feeding, and, as Mr. Holmes has remarked (p. 5), by selecting the "right bud" at the "right time." Which, however, is to be considered the "right bud" may not be so generally known: hence the few following remarks with which Mr. Salter has favoured us, will be welcome. The "right time" for disbudding can only be truly learned by experimental cultivation:—

"To insure success in growing specimen blooms, the nature of the variety should be well understood. Many *Chrysanthemums* produce the best flowers from the crown or centre buds; while others require that these should be removed. As a general rule, all the varieties which have very double flowers made up of coarse or confused florets, should have the centre bud taken away, and the second or side bud allowed to remain. On the contrary, those which are of more delicate growth should have the buds from the side removed, and the centre or crown buds alone should be allowed to develope. By this means it will be found that many plants generally considered useless for exhibition, may be made to produce fine well-formed blooms. The following lists will be some guide to inexperienced persons as to the habit of some of the best varieties.

"The following varieties should have the CENTRE BUD RETAINED:—Alfred Salter, Anaxo, Alarm, Aimée Ferrière, Cassandra, Formosum, Glory, Golden Queen of England, General Hardinge, Jardin des Plantes, Lut'eum formosum, Madame Lebois, Maréchal Duroc, Mrs. W. Holborn, Nonpareil, Queen of the Isles, Quintus Curtius, Raymond, Queen of England, Themis, and Yellow Perfection. Of newer sorts, so far as experience has been had:—Carissima, Cherub, Dr. Brock, Duchess of Wellington, Golden Trilby, Lady Hardinge, Little Harry, Lord Ranelagh, Pandora, Penelope, Rifleman, Scraph, and Sparkler.

"The following should have the CENTRE BUD REMOVED:—Auguste Mié, Christophe Colomb, Fabius, Hermine, Léon Leguay, Le Prophète, Lysias, Miss Kate, Novelty, Nell Gwynne, Pio Nono, Trilby, and Vesta. Of the newer sorts:—Bacchus, Boadicea, Caractacus, General Slade, Golden King, Golden Hermine, and Lord of the Isles."

SITUATIONS FOR FINE-FOLIAGED PLANTS.

ORNAMENTAL and large-leaved plants having of late years become favourites for bedding purposes, a little notice of the most ornamental, and what we have grown here, may be useful to parties anxious to try a few.

The most suitable places for them are undulating grounds or by water, among miscellaneous beds of American plants, and various places, according to the circumstances of different grounds. They are never likely to be useful for the geometrical style of gardening; but this interesting addition to our English gardening is only beginning.

In the Champs Elysées, at Paris, where most of these are grown, they are planted in large oval clumps raised high in the centre, and become a thicket, only the outside plants being able properly to develope the leaves, at the same time, answering, as intended there, the purpose of a thick screen.

Beginning with Cannas, as the largest in the class, these are the only varieties we consider worth cultivating for this purpose—viz., C. Annai, gigantea, and zebrina; the first and last we had in large beds this season, quite as fine as any we saw in France. Annai, or as the French spell it, Annei, is much the best, and we found last spring a month's decoration for the hall out of these before turning them out. Gigantea is the next, and zebrina very little behind, some might prefer it; but in the other endless varieties there is nothing novel or good.

Caladium is next, and of these esculentum is by far the best. We had large beds of this equally as fine as any we saw in Paris, and left out as late as *Geraniums*.

Next is *Wigandia caracasana*. This should be planted singly on the grass, and the top pinched off: the leaves become, as our neighbours say, "magnifique." This plant will not bear a lower temperature than 40° in winter. *Ricinus major*, when two years old, and planted singly, is very effective. These we found, like the others, to answer equally here as in Paris.

Musas and Ferns, Begonias, &c., looking very much starved, and some even ridiculous, with their leaves flapping like the torn sails of a windmill—they are out of the question for England. Not so with the Australian Palms and the tree Ferns your correspondent notices, at page 150, as having seen at Mr. Veitch's. I predict a bright future for these as ornaments on all grass lawns.

Cannas and Caladiums are easy to manage; ours are now laid in odd corners, forcing them on a little in spring. They are clean, and may be put in any house with a little heat.

(To be continued.)

Cleveland.

J. FLEMING.

THE GREAT EXHIBITION AND HORTICULTURE.

WE hope the forthcoming Exhibition will produce us some useful kind of covering materials for garden structures; the present high price of Russian mats and their limited supply rendering the manufacturing of some substitute imperative. We should suppose that there exists plenty of raw material in the shape of coarse vegetable fibre, which only awaits the process of conversion to fit it for the purpose, and for which if sufficiently low in price there would be an unlimited demand. Mats have certainly the advantage of long usage, and are garden-looking things when employed as a *protective*, but are at this time the most expensive item in garden management. Frigi domo is too expensive, and does not resist wet, which the substitute should; and also be a good nonconductor, and sufficiently pliable to roll up when not wanted.

It would be within the objects of the Royal Horticultural Society to offer a prize for the most useful and economical material for this purpose, by way of directing the attention of manufacturers to the subject.

BOTTOM HEAT.

THE interest attaching to this subject is still increasing, and its adoption as a leading principle in the cultivation of forced and exotic plants will doubtless soon become universal, it may therefore interest some of your readers to know more about its effects on growing plants.

The application of bottom heat to the culture of such plants as the Pine, Melon, and Cucumber, is as old as their cultivation in this country. More recently, early vinery-borders have been supplied with bottom heat, either by means of hot water or dung linings; and numerous instances in the pot cultivation of exotic plants might be adduced to show the advantages which delicate or sickly plants derive from having their roots placed in a uniform medium heated to a point between 70° and 90°.

It was the errors committed by rash cultivators in exposing the roots of their plants to an unnatural amount of heat, which of course injured if it did not destroy them, which led many good gardeners and physiologists to question its utility, and led them to suppose that in trying to go beyond what Nature has ordained for living plants we are acting in opposition to her laws. If we confined our cultivation to plants only of our own climate, this reasoning would hold good, but even then so far only as our culture did not extend beyond the natural seasons when each respective plant attained maturity; for directly we commence either forcing or retarding we enter into an artificial state of culture requiring artificial means to insure success. And thus it is that the judicious application of bottom heat comes in to assist Nature, in opposition (so far as regards the growth of plants out of their natural season) to her general economy.

The application of bottom heat to out-door cultivation, or geothermal culture as it is now termed, is beginning to claim attention as a powerful auxiliary for growing a variety of useful and ornamental plants in the open air, which would fail without its assistance. For the present I will confine myself to the house culture of fruits, where I believe its more general employment would confer advantages scarcely yet appreciated. In walking round the houses at a celebrated nursery the other day, I remarked the great vigour of a Vine growing in a 10-inch pot, and which formed a rod equal to what is not frequently grown in a rich border; the pot rested on the hot-water pipe just where it entered the house from the boiler, and, consequently, the roots of the Vine in question were exposed to its influence. The strength of this plant, which exceeded all the others, had not escaped the notice of the worthy proprietor, and he attributed its superiority to the extra bottom heat the plant had enjoyed. I have frequently noticed how much longer Cucumbers will continue productive when subjected to a steady bottom heat; whereas, when this has been allowed to decline, the plant seems to stop further growth and give up further bearing. In the spring of this present year, two lots of the same batch of Strawberries were selected, one-half of which were plunged in a slight bottom heat in a glass pit, the other half placed in the ordinary way on the shelves of a forcing-house, the plants at the time were just showing the bloom-trusses. I gave those plunged nothing but clear water; while the other had good liquid manure each second watering; yet, although these latter had greater advantages of light and air over the other, they ripened only three days earlier, while those in bottom heat produced fully one-third more in bulk of fruit, which was altogether finer, several of the fruits weighing $1\frac{1}{2}$ oz. each; the variety being the Oscar. One thing as regards this experiment struck me as fully confirming the view I have long held on this subject, which is the length of time which the plunged plants would have continued in bearing, had I wished them to do so, for strong trusses of bloom were showing themselves before the last fruit was gathered; and I consider that this variety, and one or two others, if plunged in bottom heat for the first crop, and allowed to remain, a second might be obtained within a short time—a fact which may have weight when plants are scarce. The rationale of the system appears to be this: the more active the roots of any plant are kept the more food will they take up, and the greater the number of leaves will they supply with the elements for assimilation. Subjected to a uniform bottom heat, the roots are maintained in a constantly excited state, and it is possible to imagine the roots of a Vine confined to a 10-inch pot one mass of active spongioles requiring to be fed, perhaps several times daily, with food. We can also imagine that with this mass of roots so completely under control as to heat, the plant only requires to be properly supplied with food to nourish and perfect as large a crop as the amount of foliage on the plant would enable it to ripen perfectly; and, if I am correct in this, it is easy to calculate what immense crops may be obtained through pot culture—through the application of bottom heat. I do not wish to limit these observations to the Vine alone, for I am clearly of opinion that the Peach, Nectarine, Apricot, and Fig, would be influenced in an equally favourable manner by the same method of treatment. Under all circumstances I give the preference to setting the pots over a heated chamber or a series of pipes, to plunging them, owing to the difficulty of confining the roots inside the pots when plunged; otherwise, where the heat can be kept up without much inconvenience, or subjecting the plants to any great change, it will answer equally.

The advantages of bottom heat to such forced fruits as we have named, appear to be in promoting an earlier growth and maturity of the wood, and,

consequently, greater fruitfulness; and when in the fruiting stage, by enabling the roots to take up an extra quantity of food, and to supply it uniformly throughout the successive stages of fruiting, and thereby giving power to the plant to mature, in the greatest possible perfection, its fruit. A. P. S.

THE FANCY PELARGONIUM.

THIS plant, although one of comparatively easy culture, is, perhaps, more generally mismanaged than any other. Instead of short, sturdy specimens, how frequently are they weak, drawn, and sickly, when with an ordinary amount of care they might have been all that could be desired. As a decorative plant its merit is very great, producing, as it does, large masses of flower of the gayest and most varied colours—in fact, by slightly varying the ordinary treatment it may be had in bloom nearly the whole of the year.

The mode of treatment which I have found most successful is as follows, commencing with the propagation of the plant:—To insure success, the cuttings should be moderately firm and well-ripened shoots; the method of making them is too well known to need description here. The soil in which they thrive best is thoroughly decomposed loam and dung; this, with a liberal admixture of sharp silver sand, with the addition of a little leaf mould for the cuttings, is all that is necessary to grow them in perfection. Having a supply of the foregoing, next procure some clean 48-sized pots, well drain them with broken potsherds, make the soil fine, fill them, and press moderately firm; then insert the cuttings, as many as the pot will hold without crowding; make them quite tight, and the operation is complete. Now set in a light airy place, protected from heavy rains. Do not shade, as they will bear any amount of light; give occasional supplies of water, and in three weeks or a month they will have struck root. When rooted sufficiently, pot them off separately into small 60-sized pots, taking care to preserve as much of the root as possible; after potting, place them where they can be kept moderately close and warm. As soon as established, give abundance of air; and should green fly make its appearance, fumigate immediately. This is of the greatest importance. Their next shift may be into 48-sized pots, in which, after growing a few joints, they may be stopped, which will cause them to break, and make dwarf bushy plants. If they have been well attended to, they will be ready for their final shift by the middle of November into 32-sized pots, which will be large enough for the first season. Well drain the pots and use the compost rather coarser than before. After this keep them rather close for a few days, until they are established, when, on all favourable opportunities, they should have abundance of air. The night temperature need not exceed 42°: it is a common mistake to keep Fancies too warm. Carefully remove all decayed foliage, and keep the stage, glass, and all about them perfectly clean. In watering, great care must be taken; at this season it is better to keep them rather on the side of dryness than otherwise. If possible, choose a fine bright morning for this operation. Make a little fire, and open the sashes at the same time to dispel the damp, so that the house may become perfectly dry before closing, which should be done early to dispense with fire heat as much as possible. As soon as shoots are sufficiently long they should be tied out; fasten a piece of string beneath the rim of the pot, and draw the shoots down gradually as they elongate. When the days lengthen, they will require rather more water, and occasionally a little weak liquid manure may be given them—sheep or deer dung is the best. As the plants progress, they will require all the space that can be given them. Pay every attention to them now, as it is of the utmost importance that they

should become as strong as possible the first season. In bright weather, when the trusses of bloom make their appearance, a slight shade will be necessary; increase it as the season advances, and occasionally the syringe may be drawn over them on fine days before closing the house. Before the flowers expand, fumigate two or three nights in succession, this will destroy all green fly, and keep the plants clean for the rest of the season. The cultivator will now have little to do but to admire their beauties as they come into bloom.

If you intend exhibiting, the treatment the second season must be slightly varied. As the plants go out of flower they should be watered sparingly, and placed where they can have abundance of air and sun, so that they may become ripe and hard before cutting down, which is generally performed about the second or third week in July. Leave the shoots from 4 to 5 inches in length, and cut them so that when completed the plants form half a globe. They should now be watered and occasionally sprinkled, to induce them to break freely. When the shoots are about half an inch in length they should be shaken out, the roots shortened, and repotted into a size smaller pot. After potting they may be placed in a pit; keep them close, and shade, gradually reducing this as they become established. They should be housed by the first week in September, and encouraged to grow as much as possible. Those for the May shows should receive their final shift into 8-inch pots not later than the first week in October. Those for June and July, in November. Use the same compost as before recommended, break it fine, but do not sift, and use abundance of drainage. They will require great care to prevent their becoming drawn, and train the shoots so as to form handsome round bushes. In January, those intended for early flowering should be selected, and receive a little fire heat, with a temperature of 45° at night to 50° by day. Increase the temperature as the season advances. Give occasional supplies of weak liquid manure, and attend strictly to fumigation. Those for June should not be excited at present, and those for late flowering should be stopped about the middle of the month. As the plants advance, they require increased attention; and when coming into flower carefully exclude all bees, and invariably water them in the morning, so that they may become dry before night. If the house is closed when damp the flowers decay, and soon fall off. They should now be from 2 to 3 feet through, and loaded with flowers of fine quality, and fit objects to grace any of the metropolitan exhibitions.

The following are a few of the best varieties in cultivation;—Acme, Arabella Goddard, Beauty, Bridesmaid, Captivator, Clara Novello, Cloth of Silver, Celestial, Emperor of Morocco, Formosum, Lady Craven, Madam Sainton Dolby, Madame Rougière, Modestum, Negro, Omega, Princess Royal, Queen of the Valley, Rosabelle, Sarah Turner, and Undine.

Shardeloes Gardens, Amersham, Bucks.

HENRY BAILEY, JUN.

RENOVATING ESTABLISHED OLD VINES WITHOUT THE LOSS OF A SEASON'S CROP.

It is an old saying "Necessity is the Mother of Invention," and so it was the case in this instance. I had five vineries at this place, and all were in need of renewal on my entering upon charge of them; but my employer would not hear of any of them being renovated, although they were much run out, having been in bearing for thirty years.

The system I am about to detail I do not mean to say is the most practicable; nevertheless, some who may be placed in similar circumstances, or others who cannot command every essential to meet their desired ends, may be glad to try

this method, to save time and expense, having proved the above system to be quite satisfactory in every respect. The width of my vineries is on an average 13 or 14 feet inside, the front-wall bearers resting on a pillar under each rafter, the space between being open to allow free egress for the roots running out. The original Vines were planted inside of the houses, close to the front wall, the roots at liberty to run either out or in.

The first thing I provided was a young shoot to start from the bottom of every old Vine; that is more easily attainable by cutting down a shoot at the bottom of every old Vine, or by cutting the bark with a nick above a dormant eye, when there is no second or extra shoot on the old rods. These young shoots are to be encouraged, and trained up to the top of the house, even a little down the back wall if thought desirable to meet the space where it will eventually be placed the following season. The following autumn or spring, then, I take out all the old soil 7 feet broad from front wall backwards, or if thought desirable all may be taken out the first season. In clearing out the old soil I found most of the roots had gone to the outside: therefore I took away the old soil very close to the old Vines, and quite to the depth required, nearly $3\frac{1}{2}$ feet, and I concreted the bottom, allowing a gentle incline outward, then a drainage of broken stone or brickbats, allowing $2\frac{1}{2}$ feet for soil, then a rubble drain from the bottom to the surface of the border was made to carry off all wet. The drainage will be continued outwards when the outer border is renewed. These houses are heated by the common smoke-flues. I have never had the advantage of bottom heat for vineries here, but I consider it most advantageous for both early and late forcing if rightly constructed. However, were I now erecting new vineries and not allowed the advantage of bottom heat, I would by all means elevate my outside borders quite above the surface of the original ground, and have a vacuum under the border, the said vacuum to communicate with the heated air of the inside atmosphere, the rise of the border outside just answering for that arrangement. The border outside would be many degrees higher in the temperature of the soil than if it were resting on the original cold bottom, where it would be influenced by the rise of damp and cold below. I top-dress all the inside of my Vine-border with 2 or 3 inches deep of round clean gravel, not less than a large Bean or small marble, the surface is always clean, and the moisture is retained, the stones checking the evaporation, light being excluded.

I am a great advocate for a porous soil for making the borders, and therefore I would use the following mixture:—To six loads of good strong loam, mix four loads of old mortar rubbish, three loads of charred earth and charcoal, one load and a half half-inch crushed bones, two loads fresh horse-droppings if thought proper. This mixture prepared in due time, the half or whole of the border may be renewed at once, as thought convenient. In spring or before beginning to force take down the young Vine-rods, bend them over in a circular form, bringing the tops forward to the bottom of the old Vine-stool. The portion of young rod brought down must be laid down in the soil of the new border as far back as it comes in contact with the ground. Before laying down the rod make several splits through its centre, which will cause them to throw off roots. The portion of stem above ground to remain till the second season's growth is over, when they will be well established and the old rods can be striped half-way up the house. The new rod to be tied to the bare portion of the old Vine, or if preferred the old rods done away with entirely. If the former plan is adopted, the young Vines could be cut shorter down the first season of their bearing. The outside border can be renewed at two intervals or all at once, after the old Vines are turned out.

Dalmeny Park, N.B.

WILLIAM MELVILLE.

MEMOIR OF THE LATE MR. H. BURN, OF TOTTENHAM PARK.

THE late Mr. Burn was, we have heard him say, a native of the banks of the Tweed; but on which bank of that border stream we have no information. On visiting London, he was for some time under the late Mr. John Henderson and Mr. Malcolm, and at an early age was appointed gardener to the late Marquis, at that time Earl, of Aylesbury, at East Sheen, when, after a short residence, he was removed to Tottenham Park, the principal residence of the family in Wiltshire. This was in 1811 or 1812, and this situation he filled up to within six months of his decease, when he retired to a most comfortable residence, given him by the present Marquis at Chisbury, within a short distance of the place where he had spent so many years of his life. Mr. Burn was well known as a successful raiser of many valuable kinds of hardy Rhododendrons and Azaleas. The first scarlet Rhododendron (arboreum) which bloomed in England was at the Grange, in Hampshire; and pollen from the first head of flowers which opened, was given by Lord Ashburton to Mr. Burn and the late Mr. Gowen, F.H.S., then Secretary to Lord Carnarvon, and from that individual head of bloom we may, in a great measure, date the commencement of our present race of hardy scarlet Rhododendrons, as the best hybrids of the Tottenham Park and Highclere collections have been successively crossed with hardy kinds, until the rich colour of the original Nepaul arboreum has been obtained on plants as hardy as *catawbiense* or *maxima*. The Rhododendrons, both at Tottenham and Highclere, have long been noted, and many of them are now immense specimens. One great object of his labours in this line was to get a scarlet Rhododendron which would not bloom before July—a result, we believe, yet undecided. Mr. Burn raised a batch of very valuable hardy Azaleas, between the deep orange *A. chinensis* and the older varieties with fragrant flowers. The large size of the blooms of these hybrids, and more vigorous habit, combined with the fragrance of the Old Pink Nosegay, constitute them great acquisitions, as are also some exceedingly fine crosses between *A. coccinea* and *calendulacea* hybrids and *chinensis*. We have only space to notice the above portion of our late esteemed friend's labours, and must pass over, therefore, what we had otherwise intended to say of his general practice. Our friendship extended over the last twenty-five years, and we write feelingly of the warm-hearted generosity which characterised his life, and gained for him troops of friends; for no man in his sphere of life was more respected either by employers or friends. Our latest visit to him was on the last day of October. It was a bright sunny day, balmy and mild as May; and on driving our friend through the fine plantations of Tottenham, many of which he had planted, lighted up as they were by an autumn sun, which even in their decay constituted them a glorious landscape, we could scarcely repress the forebodings, which were so soon to become realised, that our friend would shortly rest beneath the shadow of those trees whose growth he had witnessed for half a century. And so it was, that on December 20th, "was interred in the beautiful churchyard of St. Katherine's, Tottenham Park, the remains of our long-esteemed friend, Henry Burn."

AWARDS OF THE FLORAL COMMITTEE OF THE ROYAL HORTICULTURAL SOCIETY.

(Continued from page 29.)

FUCHSIA HUGH MILLER.—August 13, Messrs. Veitch & Son, Exeter and Chelsea.—A dwarf, vigorous, free-blooming, and showy decorative variety, with very large, pale pink, long-tubed flowers, having a large reddish-purple corolla. A variety of distinct character.

FUCHSIA UNIVERSAL.—September 24, Mr. G. Smith, Hornsey Road.—A fine double variety of the *Globosa* character, free-blooming and bold; the flowers large, with coral sepals, and dark violet full corolla.

GESNERA REFULGENS.—September 11, Mr. W. Bull.—A fine stove perennial, with the broad leaves mottled with green and rich brown, and clothed with purplish-red hairs, as in *G. cinnabarina*.

GLADIOLUS STRIATUS FORMOSISSIMUS.—August 13, Mr. Standish, Bagshot.—A blush white variety, striped abundantly and irregularly with bright crimson purple.

GRAPTOPHYLLUM HORTENSE.—November 12, Messrs. Veitch & Son, Exeter and Chelsea.—A curious and pretty stove soft shrub; a variety of the well-known caricature plant, in which the leaves are suffused with red, and the grotesque blotches are of a pinkish-cream colour.

HOLLYHOCK COUNTESS RUSSELL.—August 27, Mr. W. Chater, Saffron Walden.—A large, well-proportioned flower, of a deep peach blossom, or bright light pink, both showy and fine in properties.

HOLLYHOCK GEORGE KEITH.—August 13, Messrs. Downie, Laird, & Laing.—A large and full light-crimson-flowered variety, of fine properties.

HOLLYHOCK INVINCIBLE.—August 27, Mr. W. Chater.—A showy variety of full even form; the colour is salmon rose.

HOLLYHOCK INVINCIBLE.—September 11, Mr. W. Chater.—A salmon-coloured sort, of good form and substance, and a very desirable flower. It had been previously commended.

HOLLYHOCK JOSHUA CLARK.—August 13, Mr. W. Chater.—A fine light crimson variety of excellent properties.

HOLLYHOCK LADY DACRES.—August 27, Messrs. Downie, Laird, & Laing.—A very fine pale salmon or flesh colour, having large flowers of good form.

HOLLYHOCK LADY KING.—August 27, Mr. W. Chater, Saffron Walden.—A full and well-formed large deep crimson.

HOLLYHOCK LADY KING.—September 11, Mr. W. Chater.—A fine crimson scarlet variety of good properties. It has been previously commended.

HOLLYHOCK LADY H. ST. CLAIR.—August 13, Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh.—A fine blush variety.

HOLLYHOCK NE PLUS ULTRA.—August 27, Mr. W. Chater.—A variety of good form, and desirable in colour, which is a rosy purple lilac.

HOLLYHOCK PRINCE IMPERIAL.—September 11, Mr. Bircham, Hendenham.—A very deep claret, of average form, but the ground petals a little rough; fine dense colour.

HOLLYHOCK STANSTEAD RIVAL.—August 13, Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh.—A finely formed salmon rose, full, and of large size, and entirely without pockets.

LEPANTHES CALODICTYON.—October 8, Messrs. Osborn & Son.—A minute, but lovely little stove Orchid, 2-3 inches high, with the ovate leaves beautifully veined with rich olive brown on a pale green ground.

LOMARIA ELONGATA.—November 12, Mr. Standish, Bagshot.—A very fine evergreen New Zealand Fern, with bold, dark green pinnatifid leaves, and contracted fertile fronds, the segments in both forms remarkably decurrent behind.

MUTISIA DECURRENS.—August 13, Messrs. Veitch & Son, Exeter and Chelsea.—A splendid hardy evergreen Chilean climber, with simple narrowish-tendrilled leaves, decurrent behind, so as to form a winged stem, and bearing large, intense orange Gazania-like flower-heads.

PELARGONIUM (VARIEGATED) DELICATA.—August 27, Messrs. E. G. Henderson & Son, St. John's Wood.—A pretty silver-edged variety, having the leaves faintly pink-zoned; the flowers light rosy pink.

PELARGONIUM (VARIEGATED) MRS. POLLOCK.—August 27, Messrs. E. G. Henderson and Son.—A very handsome variety, similar to the foregoing in general character, equally bold in the marking, but rather deeper and less brilliant.

PELARGONIUM (ZONALE) PORTOBELLO.—August 27, Mr. Richardson, gardener to Lady Gerard, East Sheen.—A showy compact-habited variety, with a broad dark green zone-like edge to the leaves, which are paler in the centre; the flowers light orange scarlet, in bold, well-elevated trusses.

PELARGONIUM (VARIEGATED) SUNSET.—August 27, Messrs. E. G. Henderson & Son, St. John's Wood.—A beautiful tricolor variety, with flat leaves, green in the centre, yellowish at the edge, and with a prominent and bright red zone, light red on the creamy parts, and chocolate where overlying the green. The finest of this character yet seen.

PENTSTEMON LOBBIANUS.—August 27, Messrs. Low & Co.—A very distinct hardy perennial of sub-shrubby Myrtle-like appearance, with twiggy stems, small, elliptic, shining leaves, and very short-tubed gaping yellow flowers, quite dissimilar from those of the species commonly grown.

POLLIA PURPUREA.—August 27, Messrs. Low & Co., Clapton; and Mr. Bull, Chelsea.—A neat dwarf stove herb, with broadly oblong-lanceolate, shining, bronzy purple foliage; red purple beneath, and having stems about a foot in height.

POLYBOTRYA LOWI.—August 27, Messrs. Low & Co., Clapton.—A fine scandent Fern, shown as *Arthrobotrya articulata*. It has pinnate fronds of two forms; some with small pinnæ obliquely ovate and crenated, developed only on one side of the winged rachis; others larger and equally pinnate with oblong-elongated pinnæ. The fertile fronds are not yet known.

RETINOSPORA PISIFERA.—September 11, Messrs. Veitch & Son, Exeter and Chelsea.—A fine evergreen Japanese Conifer, remarkably elegant, and a most desirable acquisition. With it was shown *R. obtusa*, which had already obtained the highest award, as a fine new evergreen tree, at the Society's grand exhibition.

SEDUM CARNEUM VARIEGATUM.—September 11, Messrs. E. G. Henderson & Son, St. John's Wood.—A dwarf herbaceous perennial, with short, trailing, succulent stems, and glaucous green linear leaves edged with white; the flowers yellow. A good plant for suspended baskets, of remarkably neat appearance.

STENOCASTRA CONCINNA.—November 12, Messrs. Veitch & Son, Chelsea.—A pretty little miniature stove herb, forming a tuft of small ovate leaves, and numerous light purplish-lilac flowers.

VACCINIUM VITIS-IDÆA FOL. VARIEGATIS.—September 24, Mr. Salter, Hammersmith.—A neat, dwarf, hardy shrub of evergreen character, with small roundish leaves edged and mottled with white; well suited for the outsides of clumps of American plants.

WOODWARDIA ORIENTALIS.—November 12, Mr. Stardish, Bagshot.—A very beautiful, hardy, Japanese Fern, with bi-pinnatifid coriaceous fronds, and elegantly acuminate segments, the fronds producing very freely on the upper surface little proliferous buds or bulbils.

CAYENNE PINES.

So much has been said and written in commendation of these Pines, from their introduction into this country until the present time, that they have been eagerly sought after by most Pine growers, under the impression that they are the best sorts in cultivation.

In the answers to correspondents in one of the Numbers of the *FLORIST*, you say, "The Smooth Cayenne Pine is as good as a Queen in summer, and much better than that variety in winter; it is a free grower, very handsome in appearance, and has been grown ten pounds and upwards in weight. There is no Pine possessing so many good qualities as this variety. The Prickly-leaved, when well-grown, will equal the above in weight, but is more acid in flavour, and apt to decay in the lower part before the top is thoroughly ripened." Do these varieties of Pine deserve all that has been said of them? Have they, then, no bad properties?

Our own experience of these varieties is very considerable, being a large grower of them for many years; indeed, the greater part of our stock consisted of them at one time.

The result of our experience is, that we consider them scarcely worth cultivating, more especially the Prickly-leaved variety. Methinks I hear some exclaim, What! Cayenne Pines scarcely worth growing!" Yes, we are serious, when we repeat that they are not worth growing. That they have many qualities which may recommend them to some people we readily admit; but they have also some properties, which in our opinion, to some extent counter-balance these. Both varieties are very free growers; the Prickly-leaved particularly so. Indeed, we believe they are the freest growing kinds in cultivation; this quality makes them favourites with many. With good management, when they show fruit at a good season, they will bear very fine, handsome fruit. We have grown most beautiful fruit of both kinds for years, and have obtained many prizes with them. Still, our candid opinion is against them for the following reasons:—First. When they show fruit during the autumn or winter months, even when the greatest care has been taken with them whilst in bloom, there will oftentimes be some defective pips; and, when this occurs, the fruit will begin to decay in those parts before they are ripe. With fruit that has started during the winter, it will often happen that the lower part will begin to decay before the top is ripe. The Prickly-leaved sort is, however, the worst in this respect. Secondly. When the fruit are ripe, they only keep for a very short time; they very soon begin to decay. This, we think, is a very bad quality; for it will sometimes happen the fruit may not be wanted just when ripe, and if wanted a short time after, they will not be fit for use. Any variety of Pine that will not keep a few weeks after it is ripe, however good its other qualities may be, is not worth cultivating, either for private supplies or the market.

For summer use, there are none better than the Ripley Queen; and for winter, none better than the Black Jamaica. Both kinds will keep in good condition any time in the year for a considerable time after they are ripe. The Black Jamaica is only a delicately rooting Pine, and that is one reason why many neglect it and run after free-growing and strong-rooting kinds, like the Cayennes. A few Cayennes, Providences, Envilles, Otaheites, Trinadads, &c., may, in very large collections, be grown for the sake of the size and variety. Being a successful Pine grower for many years, and having grown most of the leading sorts in cultivation, the result of our long experience is that for summer use the Ripley Queen, and for winter the Black Jamaica, when well-grown, are the best, most useful, and profitable sorts in cultivation.

M. S.

POTS VERSUS BORDERS.

THE question of fruit trees in pots *versus* open borders having been discussed lately in the columns of a contemporary, less with regard to the principles involved than a desire, by the discussionists, to attack each other, I offer you a few observations on the subject. The fact as to which plan will produce the most certain crops of the best quality is one much more dependant on treatment, than whether the roots are inside a pot or in the open

border. It is an ascertained truth, that the roots of all plants are active in proportion to the number of mouths they possess; and that this power of multiplying these small fibrous roots is increased when the roots are somewhat confined, as is the case with potted plants. To multiply these short feeding roots, and to supply them throughout the year with food, is the one great object to attain in fruit culture; and I see no reason why it cannot be accomplished with greater facility when the trees are in pots than when they are planted out, which very frequently induces the trees to form long, rambling roots. These check the formation of the smaller roots in numbers, and when they are cut away by root-pruning the trees receive a check in consequence. When the roots are confined, the trees, I know, may be kept in vigorous health by replacing the worn-out soil about the roots annually with new compost—an equivalent to the roots in open borders finding themselves a fresh pasture by the extension of their points. In pot culture I shorten a portion of the roots back each autumn, so as to keep all the roots young and healthy; and when the trees are growing, I feed besides with liquid manure. Then, again, as to top treatment, not a shoot, or leaf even, should be allowed to grow to waste, or to rob those immediately required for perfecting fruit or producing the wood for the following season. By careful thinning and constant stopping, the leaves allowed to remain become larger, and so much more powerful assimilators of wood and fruit-producing materials, which again induce larger and more highly developed fruit-buds, followed by larger flowers and fruit. It is also a great assistance towards obtaining the highest results in fruit culture to thin out the blooms when too thickly furnished, and the fruit immediately it is formed, instead of waiting until half swelled before doing so. The entire powers of the tree should be solely directed to the nourishment of the fruit, and, excepting so far as future wood may be wanted, everything else should be closely stopped-in. The Apple, Pear, Peach, Apricot, and Plum, are all susceptible of a great improvement both in size and quality by a closer attention to the above details—too small in themselves, perhaps, to engage general notice. But great successes in horticulture, like successes in other walks of business, are composed so largely of small details, that they too frequently get overlooked. Let growers of fruits in pots compare their hitherto best efforts with what is done with the Rose in a 12-inch pot, and it may assist them in arriving at the conclusion I have drawn for myself—that pot culture for the above, has not reached its best yet. The French gardeners greatly excel us in their attention to details, and hence see the Apples and Pears they produce, as well as Peaches, for which their climate alone is not sufficient to account, and which, with our orchard-house, we ought to excel.—O. P.

RASPBERRIES.

THE master, seeing his men very busy in doing "nothing," asks the following question, and gets the following answer, "John, what are you doing?" "Nothing, Sir." "William, what are you doing?" "Please, Sir, I was just looking after John." "Very good, here is March come upon us, I will see if I can't find better employment for both of you. Get Parke's fork, and go into the Raspberry-bed; take up the runners, and fork the bed all over: mind, there is nothing like deep cultivation!" This is tolerably well obeyed by John and William. Now, I ask any man how he can expect to have a crop of Raspberries after this fashion? Not only are the old roots broken, but the new spongioses are broken also; and the roots being turned up to sun and wind, like the ends of skates, of course the crop dwindles away. Hence a man comes to the absurd conclusion that the garden will not bear Strawberries and Raspberries. Look at the gardens of England generally, and you will find that, except in wet, dripping summers, there are neither of these fruits. Never disturb the ground at all; handweed, and cover the whole soil with stable litter from the horse, with a little black manure round the stools, and you will have more Raspberries than you will know what to do with. If the summer is very sultry, give each stool one bucket of water twice a-week. A Raspberry, like a woodcock, lives by suction. From three to five canes are enough, and these should be cut down to 3 feet. You will get as much fruit by this height as if you left them 8 feet high. In a word, the dormant eyes at the base will break, protect the young canes, and keep off the sun. Mine are strong, and are cut to an average of 2 feet 9 inches. I have only one sort, the Beepot (red), which with this treatment never fails. The crop last year was enormous; but, for want of sun, lacking in flavour. Under proper treatment it cannot be too hot for Raspberries and Strawberries. Weak liquid manure, and Peruvian guano one small handful to a stable bucket of water, will greatly assist. With regard to forking the ground, I must observe that I have not moved mine for the last three or four years. If you do move your ground, instead of your new canes coming up close to the stools, you will have them all over the bed. The candle will burn at both ends, and in the middle too. Keep all runners down except those close to the stools. The closer the ground is kept down the greater will be your crop. High manuring upon an undisturbed surface are two

main features in growing Raspberries and Strawberries. No man tears out the stomach and entrails of his horse and pig in order to fatten them; but this is what a man does when he despoils the roots and rootlets of his plants. I am encouraged to make the above remarks by the numerous letters of thanks which I have received from your readers, in different counties, for my Strawberry article. The preparation for Raspberries is precisely the same as for Strawberries. I think the best distance is a yard from plant to plant, and from row to row. The following Raspberries are well spoken of by Mr. Rivers, in his noble catalogue of fruits:—Red Antwerp, Yellow Antwerp, Fillbasket, Fastloff (red), vulgarly called Falfstaff, Cuthill's Prince of Wales (red), Carter's Prolific (red). I have tried the Red Antwerp and Fastloff; but they bear no comparison for canes and crop to the Bepot, which, I suppose, is the same as Knevott's Giant; moreover, it never blights. Finally, what a pity it is that John and William should work so hard—first, in doing nothing; secondly, in doing worse than nothing; and that men generally who possess so acutely "five senses," should be so lacking in the sixth and best of all, "common sense."

Rushton Rectory.

W. F. RADCLIFFE.

DESTROYING ANTS.

SOME time since your pages contained an account of a particularly clever gardener who hit upon the very ingenious plan of destroying ants by waiting, hammer in hand, and killing all that appeared. I wish he were in my employment at sufficiently low wages. We are pestered with ants in our hothouses; and, though we kill large numbers, they abound in many places where hot water cannot be applied, and this is the only remedy we find of any use. I have often seen it stated that ants do no harm to plants, being merely in search of insects or honeydew, excepting where they attack ripe fruit or injure the plants by throwing up the soil.

Knowing that many species of foreign ants live on vegetables, and observing many plants infested by them looked ill and recovered when removed to another place, I have long had my doubts about the harmless nature of these insects. Within the last few days I have had positive proof they can do mischief. At the end of a large house full of forced Roses a Grosse Mignonne Peach is trained on a wall; it is now in full bloom, and the ants are eating out the anthers, pistils, and embryo fruit, leaving nothing but the petals surrounding a hollow, empty cup. I presume they are in search of honey; but if they adopt such a means of obtaining it, may they not wound the foliage of a plant when its juices are in a saccharine condition for the same purpose and thus cause honeydew? Trained trees in a Peach-house are no favourites of mine. If this were in a pot it might be removed; as it is, the ants when prevented climbing the stem mount by the wall, the nest cannot be destroyed without injuring the roots of the Peach tree, and if the bloom is to be preserved the plan of the hammer is the only one that occurs to me. You, Mr. Editor, are supposed to know everything; pray come to my assistance.—J. R. PEARSON, *Chilwell*.

[In such circumstances there is nothing for it but to take Mr. Weaver's remedy of "Catch 'em and kill 'em."]

NOTES ON NURSERIES.

MR. WILLIAMS, HOLLOWAY.—A recent call at this nursery rewarded us with a first sight of *Phalanopsis Schilleriana*—an Orchid which had largely excited the hopes and fears of cultivators, but which has now proved itself to be a gem of the first water. The leaves of this plant, which are elongately oblong and blunt, are freely mottled with white, so that when out of flower the plant is interesting as a variegated Orchid. The flowers, moreover, are really handsome, and produced in well-furnished spikes—the best we have yet seen, being branched, and bearing sixteen expanded flowers as shown by R. Warner, Esq., at Kensington. They measure about 3 inches across the expanse of the petals, and except in colour, which is a delicate and lovely lilac-tinted rose, remind one strongly of *P. amabilis*. The side lobes of the lip are yellow at the base, spotted with red; otherwise the lip is rosy, widened about the middle, then contracted, and again widening at the extremity, when it is truncately rounded, with the two corners extended into longish. The plants are reported to bear a large number of flowers when in a vigorous condition. There are varieties already observed, some differences being apparent in the marking of the leaves, and some in the tint of the flowers and breadth of the petals. The plant has been recently imported from Manilla.

MESSRS. BACKHOUSE & SON, YORK.—The Nursery of Messrs. Backhouse has only become famous for its collection of Film Ferns, to the formation of which it has been well known that Mr. J. Backhouse, jun., has devoted untiring attention. This has been rewarded by the gradual accumulation of what is probably the finest collection of living plants of this

group of Ferns which has yet been seen in a state of cultivation; though, after a long voyage which they have to undergo before reaching our shores, many of the species of this group are found difficult to establish; yet, once this difficulty is overcome, they grow freely enough in a favourable atmosphere. A catalogue of these Film Ferns has just been issued by Messrs. Backhouse, and in it they describe the conditions they find favourable to cultivation in these terms:—"In a low span-roofed house, heated by warm water, circulating in open brick tanks and slightly shaded, the tropical species thrive well without any glass shades, bell-glasses, or other means of protection. Even when just received from abroad and not at all established, they answer perfectly with this treatment, the only care being to moisten the fronds twice a-day from a fine rose with tepid water, and to keep the whole atmosphere of the house as humid as possible; if sufficiently humid the fronds ought to be covered with minute dew-like drops every morning, from the slight condensation during the night. All the New Zealand, Chilian, and Tasmanian species succeed well in our ordinary (cool) fernery without any glass and shades, the glass roof being externally covered with a thin coating of white paint, and the atmosphere kept *constantly* humid. The idea largely prevails that unless kept under close glass shades these Ferns cannot be grown: this is only true when the atmosphere of the house is *dry* or only *occasionally humid*, and when the plants are not established." In support of this experience of Messrs. Backhouse we may mention as an illustration a mass of the Killarney Fern, *Trichomanes radicans*, nearly or quite a yard across, in Mr. Veitch's cool greenhouse, where it is growing freely, its rhizomes running over the end of the earthenware basket in which it is planted, and young fronds coming up in abundance, but which has not had any special covering for several months. It is truly observed of these Film Ferns, that "very few species are, as yet, developed to the point of full vigour, as nearly the whole have been introduced within the last three years; but where they are seen in character no one can fail to recognise their surpassing elegance and delicate beauty. Both in form and texture they are the gems of the Fern tribe." The catalogue of Messrs. Backhouse's collection, in which these remarks occur, describes in a popular manner twenty-seven species of *Hymenophyllum*, and forty-three of *Trichomanes*, all of which they state are in their possession "as living plants." Among the former are *H. fuciforme*, a magnificent species from South Chili, with broad erect tri-pinnatifid bluish-green smooth fronds, $1\frac{1}{2}$ to $2\frac{1}{2}$ feet high, on rigid winged stalks; *H. caudiculatum*, another handsome Chilian species, with erect, smooth, tri-pinnatifid translucent fronds, 9 to 18 inches high, on a broadly-winged stem; *H. cruentum*, also from Chili, with broad undivided seaweed-like curving-pendant fronds, 6 to 12 inches long, of a brownish-rose colour when young; *H. sericeum*, a fine West Indian species, which clothes the face of the rocks with sheets of bi-pinnate, tawny, silky, pendant fronds, 1 to 2 feet long and 2 to 3 inches wide; and *H. pulcherrimum*, an erect handsome New Zealand species with three or four-times-pinnatifid smooth fronds, 10 to 15 inches high, of a pale green colour. Of the latter genus the collection contains *T. achilleifolium*, a tufted species from the Philippine Islands, with very finely four-times-divided smooth fronds 1 to $1\frac{1}{2}$ foot high; *T. elegans*, a truly elegant West Indian plant with pinnatifid sterile fronds, and very narrow, undivided, erect, central fertile ones; *T. puma*, a very charming Bornean plant, having, erect, rigid, narrow, three-or-four-times-divided fronds, 9 to 15 inches high, with all the divisions hair-like; as well as *T. fimbriatum* from the West Indies, and *T. setigerum* and *T. superbum* from Borneo, which are regarded as altogether new.—M.

REVIEW.

The Rose Annual for 1861-62. By William Paul, F.R.H.S., Cheshunt Nurseries, Waltham Cross. London: Kent & Co.

Mr. William Paul's Rose Annual is looked for each year with increasing interest; for since he commenced these useful and very elegant annual series his fame both as a Rose-grower and very agreeable author has steadily progressed, and we congratulate him on the position he has so deservedly won for himself. That Mr. Wm. Paul is not merely a commercial Rose-grower is evident on perusing his writings, which carry the conviction with them that they are undertaken *con amore*, and hence the value of his opinions on the merits and demerits of new flowers is greatly enhanced. The present work contains admirable plates of Beauty of Waltham, a seedling (H.P.) of the author's own raising, a rich rosy crimson, of fine properties, and decidedly a first-class Rose. Marquis de Foucault (Tea), a delicate-looking Tea Rose, very distinct in colour, which is creamy white with fawn centre, and very sweet. Souvenir de Comte Cavour, of the Général Jacqueminot class, of a rich velvet crimson, shaded with a deeper maroon, and to all appearance a great acquisition to this already rich section. Next is a hybrid Bourbon (we thank the author for making this class), Catherine Guillot, a lovely flower of the well-known Louis Odier class. There are a page or two of very useful notes on the current year, and an admirable *résumé* of the favourites of 1861 which should be read by every Rose-grower.—S.

L'ENFANT TROUVÉ ROSE.—"My object in sending you the two blooms was that you might judge for yourself, and I am extremely gratified to find that you were so much pleased with them. It stood the severity of last winter on a south wall without being protected; and from this same tree from which I sent you the flowers last Saturday, I should say from five to six dozen fine flowers were cut last June and July, so that it is a free bloomer. Its habit is not very vigorous unless budded on a Banksia; it then grows beautifully. I cut stems off it as thick as a man's thumb, from a plant on an old Banksia."—B. W. CANT.

"L'Enfant Trouvé Rose arrived here (two blooms, one expanded and the other about to expand) on the 3rd of November. The blooms had been snowed upon, but still they were very fine. It appears to be a seedling from the Cloth of Gold, and is a very fine yellow Rose; as far as I could judge, the growth appeared to be vigorous. I had ordered four plants before Mr. Cant sent me the blooms, but I have now requested him to send six. I hope it may be of good constitution, which is the first point to look to. For so late a season of the year, and considering that the blooms had been snowed upon, I consider it a Rose of great substance and likely to hold a high place among our yellow Roses. I showed it to several persons, who thought it splendid. I am incautious as regards myself, but I am very cautious as regards the public, and therefore, till I have grown the Rose myself, I decline to advise any one to buy. It is a rule with me to speak from personal experience."—W. F. RADCLIFFE.

THE CHANDELIER OR MONTAGNON SYSTEM OF VINE TRAINING.—Specimens of Vines from France, trained on this system, were exhibited at South Kensington on the day of the Autumn Exhibition. The Vines were many years old, and having been taken up with a portion of their roots, presented a good example of the system. The Vines trained to a single stem, were headed back at about 3 feet from the ground, and the three or four uppermost eyes only allowed to break to form the head. The shoots from these eyes are trained horizontally and cut back hard from year to year, forming a kind of flat-headed bush with a single stem. The advantages of this system, which has been recommended for orchard-house culture, consists of the Vines requiring no stakes, which is an important item in Vine countries; some of the heads were upwards of 3 feet in diameter. This, no doubt, is a useful plan for open air culture. The pruning however, had not been very well managed; the middle of the head being deficient in fruit-spurs, which were principally round the outside, and consequently the centre was naked—a defect which those who attempt the system in orchard-house may remedy. On the whole, though an interesting mode of training, we question its utility as the most economical.

CALENDAR OF OPERATIONS.

CONSERVATORY.

This house should now be exceedingly gay and inviting. In addition to the plants mentioned last month, there will now be Roses, Lilacs, Deutzias, Weigelas, &c., which will help to increase the display. The sun heat will now be considerable in clear weather; abundance of air should therefore be given, always, however, guarding against cold currents, and always shutting up early in the afternoon. Attend well to the watering, not merely wetting the surface of the soil, but doing it effectually when it is required. We cannot too often insist on this point. Large Acacias and Camellias will be benefited by an occasional watering with weak, clear, liquid manure. Most of the permanent plants will now be starting into fresh growth, they must be well attended to in watering, and should be syringed on fine days. If the weather continue mild there will not be any necessity for fire heat. In case of frost, however, the temperature at night should not be allowed to get below 45°. Remove all plants as soon as the flowers begin to die away, and when you introduce fresh ones change the whole arrangement. Indeed, it is advisable to vary the arrangement often. Keep everything neat and orderly.

GREENHOUSES.

These plants will now be fairly starting into fresh growth, and should be encouraged by proper attention to all their wants. All plants requiring shifting should at once be carefully potted. Top-dress those that do not require shifting. Arrange and regulate the shoots by tying-out, pruning or otherwise, so as to form handsome specimens. After all the plants

are potted, top-dressed, and fresh arranged, the houses must be kept rather close for two or three weeks, and in very fine weather the plants may be occasionally syringed. They will not require much water for ten or twelve days, it should then be done effectually. Ventilate carefully.

STOVE.

With the increase of light the temperature here should be increased. Most of the plants will now be on the move, and should be encouraged to make healthy, vigorous growth. Such as were not potted last month, and that require shifting, should be immediately attended to. Maintain a moist growing atmosphere by sprinkling the paths, walls and pipes with water, and by syringing on fine days. Be careful in watering until the plants begin to root freely into the fresh soil. After active growth has commenced, and healthy vigorous foliage is produced, liberal supplies of water will become almost daily necessary. Start a fresh lot of Gloxinias, Achimenes, Gesneras, &c.

FLOWER GARDEN.

Finish the pruning of Roses, and then stir up the ground about the plants with a fork. Divide and plant herbaceous plants. Plant Carnations, Pansies, and Hollyhocks. If the ground be dry towards the end of the month, sow hardy annuals, biennials, and perennials. Pot off the cuttings of bedding plants put in last month. Cuttings of Verbenas and other soft-wooded plants put in any time this month will make good plants before "bedding-out time." *Pleasure Grounds.*—The planting of deciduous trees

and shrubs should be finished as soon as possible. Finish pruning evergreens. Lay turf, plant Box, sweep and roll grass, edge walks, and turn and roll gravel.

FORCING.

FRUIT.—*Pine Apples.*—The directions given last month for fruiting-plants are also applicable this. Take the first favourable opportunity to pot the young stock. When potted, plunge in a bottom heat of about 85°, and let the temperature be 65° to 70° by night, and 75° to 80° in the day, with an increase of about 15° by sun heat. Maintain a moist growing atmosphere, and keep them rather close until they begin to root into the fresh soil; they will then require a little water, but be careful not to overdo it. Syringe occasionally on fine days. *Vines.*—Keep a moist atmosphere whilst the fruit is swelling. When they begin to colour, a drier atmosphere must be maintained. Keep the night temperature about 65°, and during the day do not be afraid of a little fire heat, but mind to give plenty of air with it. Cold, wet borders and want of ventilation are two of the principal causes of the many mishaps we hear of with early Grapes. The succession-house will now require daily attention. Stop and tie-in shoots; thin the bunches and tie up the shoulders. Vines in late-houses should be syringed daily until the buds break. *Peaches and Nectarines.*—In general, a greater quantity of fruit will set than is required for a crop; it should be thinned very freely before they get any larger than Peas, otherwise they will uselessly exhaust the trees. Continue to syringe daily in fine weather. *Figs.*—Attend well to the syringing, otherwise red spider will become troublesome. Watering must also be well attended to. Plants in pots or boxes should not be allowed to suffer from want of water; a little weak liquid manure occasionally will be beneficial to them. *Cherries.*—When the fruit is all set, the temperature may be increased to 55° at night, and 65° in the day, with a rise of 10° by sun heat, but plenty of air must be given. Attend carefully to the watering; they are impatient of too much moisture at the roots. *Strawberries.*—Introduce a fresh lot of plants once a fortnight. Plants in bloom must have plenty of air; when sufficient fruit for a crop is set, pinch off all the other flowers. Plants in fruit should have liberal supplies of liquid manure. Give them a temperature of about 65° at night, and 75° during the day, with a rise of 10° or 15° by sun heat. Keep them near the glass and rather close until they begin to colour, when they should have plenty of air and no more water than is sufficient to keep the plants from flagging.

VEGETABLES.—*Asparagus.*—The beds made up last month will keep up a supply until it is ready for use in the open ground. *Rhubarb and Seakale.*—Keep up a succession by covering a few more roots. *Kidney Beans.*—Continue to sow once a fortnight. Keep young plants stopped, and earth-up when wanted. Withhold syringing after they come into flower, but give plenty of water at the roots. *Mustard and Cress.*—Keep up a succession. *Potatoes.*—Give these plenty of water until they approach maturity, when it should be stinted. Give plenty of air in fine weather. *Radishes, Carrots,* and other crops sown in heat must have plenty of air. *Capsicums and Tomatoes.*—Pot off and return into heat. *Cucumbers and Melons.*—Maintain a regular steady bottom heat of about 80°, and keep the temperature about 70° at night, and 80° in the day, with an increase by sun heat. Thin and regulate the shoots, so as to keep the foliage from being crowded. Water when required with tepid water. Sow for succession.

HARDY FRUIT.

The protection of wall trees must now be attended to. There is every promise of a good crop of fruit; the trees are literally one mass of flower-buds, and they will be early in bloom this season owing to the mildness of the winter. Whatever kind of protection is used, it should be so contrived as to put up or take down at pleasure with little labour. The great point is to keep the blossoms dry until the fruit is set. All nailing should be brought to a close as early

as possible. Strawberry-runners planted in beds last autumn may now be planted out.

KITCHEN GARDEN.

The fine open weather of the past winter has been so favourable for carrying on all kinds of work here, that everything should now be in readiness to proceed with the cropping, as soon as the ground is fit for the seed. *Potatoes.*—Plant on all favourable opportunities. Plant autumn-sown Cabbages, Cauliflowers, and Onions. Plant Garlic and Shallots. Make plantations of Asparagus, Sea-kale, Rhubarb, Artichokes, &c.; also of all kinds of herbs, if not already done as recommended last month. *Peas.*—Plant out those raised in pots or boxes. Sow good breadths twice during the month. *Beans.*—Plant those raised in boxes. Sow twice during the month. *Onions.*—Sow the general crop the first week, if the ground is fit. *Carrots and Parsnips.*—Sow the general crop. *Spinach.*—Sow a little Round. *Cabbages, Cauliflowers, Borecole, Brussels Sprouts and Savoys.*—Sow early in the month on a warm border. *Lettuces.*—Sow on dry, warm situations. *Radishes.*—Sow. *Asparagus.*—Sow in drills. *Turnips.*—Sow some Early White Dutch about the middle of the month. *Parsley.*—Sow in drills. *Beet.*—Sow a little towards the end of the month for autumn use. As the ground is cropped, finish everything off in a neat and workmanlike manner. Cut Box-edging, and turn and roll walks if not already done. Give every place a tidy, neat appearance.—M. S.

FLORISTS' FLOWERS.

Cinerarias.—Continue the course recommended last month. Avail yourself of every favourable opportunity to give air. Give all the room possible to specimen and other free-growing plants. Attend regularly to the tying and training of the shoots as they progress in growth. Water may be applied freely now; for large plants a little weak liquid manure is indispensable. Syringe occasionally in very bright weather to keep them clean and prevent their flagging too much. As we may yet expect cold, nipping winds, avoid as much as possible any strong currents. *Pelargoniums.*—These favourites will now commence to make more rapid progress; they will require water frequently, and the utmost care must be taken to prevent their suffering from the want of it. Liquid manure—than which there can be none better than guano water (half a thumb-pot of the real Peruvian suffices for four gallons), should be applied freely. As the days lengthen the more forward plants will require a proportionately increased temperature, avoiding, however, everything approximating to forcing. Give air freely on a bright morning, and close the house early in the afternoon, that less fire heat may be needed. Abundance of air, light, and space, is essential to the production of first-class plants. Those intended for the later exhibitions should be kept at a lower but safe temperature; all should be carefully tied out, keeping clearly in view the ultimate form you desire each plant to take. Fumigate whenever necessary, and keep houses and plants in all respects perfectly clean. You will find that the care you take in these matters will be amply repaid.—C. TURNER, *Slough.*

ROSES IN POTS.—The instructions given last month still hold good. Further, more water must be given as the leaves increase in size, and more air as the leaves and shoots harden with age. Attend to the tying-up of small plants, and the tying-out of the branches of large plants, that the sun may fall among the branches and the air circulate freely there. The plants that have done flowering should be kept dry and cool, that they may be rested till the new growth pushes; when this commences, moisture and warmth are desirable to establish a vigorous and healthy development and good second flowering, which should take place in May. Reserve stock may still be introduced to the forcing-house to flower in April and May. When syringing the plants in bloom, remember that while the leaves are copiously drenched, no water should be thrown on the flowers.—WILLIAM PAUL, *Waltham Cross, N.*



Petunia.
Petunia Eliza Mathieu.

Hand-drawn by J.B. & J. J. J.

Printed by J. J. J.

PETUNIA ELIZA MATHIEU.

WITH AN ILLUSTRATION.

THE *Petunia inimitabilis flore pleno*, which first appeared at the exhibitions and floral meetings of 1861, was unquestionably the sensation flower of the season. And well it deserved the admiration which met it on every side, for it had all the requisites to secure popularity. Indeed, we question if a more thoroughly useful plant of its class, whether for exhibition or for home decorative purposes, has ever been obtained. This beautiful novelty found its way to our gardens from those of the continental cultivators, whence so many of the really novel-featured subjects we have obtained of late years have emanated.

Appearing so recently, almost as suddenly as an apparition, and that, too, in a form which seemed to have alighted at one bound on the pinnacle of excellence, we seem hardly prepared to find that this Double-flowered Inimitable *Petunia* has been already surpassed, in some of its qualities at least, by still newer varieties; yet such is the case. The most sterling of these improved sorts is that which, through the courtesy of Mr. G. Smith, of the Tollington Nursery, Hornsey Road, we are enabled to present to our readers in the accompanying plate. It is named ELIZA MATHIEU, and combines most of the good qualities of *P. inimitabilis flore pleno*, especially its stocky vigorous habit of growth, with flowers of larger size and much more perfect form. The colour and markings of the flowers are similar in both varieties—that is to say, both of them have a ground colour of purplish-rose, though of different shades, and both are variously marked with large irregular blotches of pure white, producing handsomely mottled flowers. It will, no doubt, be remembered that the outline of the original variety is very wavy and irregular, the five points representing the segments of the normal monopetalous corolla of these plants, forming curving angular projections; but in *Eliza Mathieu* the circumference is much more evenly filled out, so that the outline represents a tolerably complete circle. Some flowers which we measured had a diameter of fully 4 inches, the centre being high and completely filled out with a crowd of petaloid segments variously blotched or margined with white, the ground colour, according to our memorandum, being a violet rose, with rather less of the lilac or mauve tint than our figure indicates. It is, doubtless, the finest of this group we as yet possess.

Another very beautiful variety of the same group is that named *Marie Rendatler*; but this is paler coloured, having more white, and the purple markings being of a lighter violet rose. This appeared to be the best of the double-blotched sorts for the open border, as grown last summer at Chiswick. All three of the varieties which have been mentioned are desirable for general cultivation as ornamental plants, and are distinct enough to admit of being grown in company.

It is as greenhouse and conservatory pot plants that these charming *Petunias* will be most valued; and for such decorative purposes they are unrivalled, not less on account of their excellent habit, which is dwarf, bushy, and well furnished with leaves and flowers, than for the very attractive character of these latter when well grown. To have good flowering plants for spring, they should be propagated about August, and grown on without check in a light, well-aired house or frame. Another set of plants for successional bloom should be propagated in spring, and these nicely grown will form admirable specimens for flowering during the later summer months.

ALL ABOUT GRAPES.

HAVING lately cut (3rd of March), some Trebbiano Grapes in good condition, perhaps some account of the vinery in which they were grown may be of interest to the readers of the *FLORIST AND POMOLOGIST* who are anxious to preserve late Grapes. The vinery is 100 feet long by 18 feet in breadth, and is intended wholly for growing Muscats, Trebbianos and other late White Grapes. It is heated by hot-water pipes, one-half of them being on the trough principle; and I find by keeping some sulphur in the water, in the spring and summer months, that the fumes from it effectually check the ravages of the red spider, and, no doubt, will help to prevent the mildew from appearing. The borders are likewise heated with pipes, both inside and out, and heat enough generated to secure a good root-action in the winter months to preserve the Grapes from shrivelling. The Grapes in this house were well ripened by the middle of August, and it is of the greatest importance to the keeping qualities of late Grapes to have them quite ripened by the end of September at the latest.

Where heated borders cannot be had, it is a good plan to have wooden shutters or some other waterproof material to cover the outside border with. This covering ought to be put on early in the autumn before the ground gets cooled and sodden by the heavy autumnal rains, and with a good slope so as to carry off the melting snow or rain quickly. A range of vineries has lately been erected here, 154 feet in length, and they are intended for growing Barbarossas, West's St. Peter's, Lady Downe's Seedling, Kempsey Alicante, and other late black Grapes; and the outside borders will be protected in this way—first, by putting on some dry litter or fern, and then the wooden shutters above it.

I am glad to hear my friend Mr. Thomson, of Dalkeith, has succeeded so well in forcing early Grapes in the autumn months, and as the greatest authority on the theory and practice of horticulture has commended his system, we may now consider it a "great fact." I am old enough to remember some other great horticultural triumphs which have been ushered in quite as sanguinely—Polmaise heating to wit, and yet have proved of doubtful utility in the generality of cases. Where early Grapes are required in January, the Vines must be rested in June and July, the warmest months in the year, and forcing commenced in September, and they begin to ripen in December, the most sunless month; but it seems sun heat is not required for that process for early Grapes. To have Grapes ripe in March, forcing must be commenced in October, and the roots of the Vines, if in outside borders and not artificially heated, would be in a worse condition than the September-forced ones, although they would have more sun heat for the Grapes ripening. I believe I distinctly stated in my communication on Grapes, in the *FLORIST AND POMOLOGIST*, page 3, that the surest and safest way to have early Grapes ripe in March and April, would be to grow them in tubs or pots with bottom heat. Where there are plenty of hothouses, a pit or house could easily be devoted for that purpose, and no difficulty can be found in raising from 200 to 300 fresh plants every year, from early eyes or cuttings, to keep up the succession. To begin forcing established Vines in October with the roots in the outside borders, requires great attention in protecting them, and the Vines do not last long in bearing. The late Mr. Forbes, of Woburn, had, perhaps, more experience in forcing early Grapes than any gardener in England, and he told me he had great trouble and anxiety to keep up the supply in the winter months with Vines in the open borders. Every third or fourth year after forcing, his Vines got so

weak and unproductive that he had to get another house ready to take their place, so that at best the system can only be carried out where there are plenty of hothouses at command. When Mr. Dowding was gardener at Oakhill, near Barnet, I remember there was a vinery in use for forcing winter Grapes, but the wood gradually dwindled smaller and got unproductive after a few years' forcing. Mr. Dowding was one of the best cultivators of Grapes in a general way, and everything was done that could be in protecting the borders so as to insure success. Great stress is laid upon having fresh green Vine leaves in the winter months for garnishing the dishes of late and early Grapes for the dessert, and this, no doubt, is desirable; but I am afraid that many cultivators of early Grapes in unheated borders will have plenty of green leaves and but few Grapes to garnish.

I see at the last Meeting of the Fruit Committee of the Royal Horticultural Society, that there were no early Grapes produced, although a prize was offered for them, and March and April are just the months when they would be useful for the dessert when the late Grapes were getting over. No Grapes ripened in January and February that I have tasted yet, could be compared in flavour with well-kept Muscats, West's St. Peter's, Black Tripoli, and Lady Downe's Seedling.

Respecting the different varieties of Muscats and Black Hamburgh Grapes, I believe they are fewer in number than is generally supposed; and that they are so much altered by cultivation, that names have been given them when not really distinct. At the great fruit show at South Kensington in November last, I exhibited three bunches of Muscats of quite a different character from what the Vine that bore them had formerly produced. This Vine was lifted with other Muscats in the spring of 1859, from a vinery in the old kitchen garden here, and planted in the new large Muscat-house with heated borders; when lifted, they were about fourteen years old, and all of the common Muscat variety. In 1861 they bore a good crop, showing immense long bunches, with long, oval berries, and might easily have been taken for a new variety. I have no doubt but they will show this year their true form of rounder and larger berries and shouldered bunches, from the Vines being now thoroughly established with fresh roots. The only really distinct varieties of Muscats that I know of, and that no cultivation will alter, are the Canon Hall, and Bowood for its free setting; the Trévère I have not fruited yet, so do not know its characteristics.

The different varieties of Black Hamburgs are likewise numerous; and, like the Muscats, are so much altered by good cultivation in the size of bunches and berries, that old sorts often are named after the places they are grown at. The distinct varieties are the Frankenthal, or Old Dutch Hamburgh, the Champion, and, perhaps, the Mill Hill, all well known by their firm flesh and peculiar hammered appearance when grown large. The Black Tripoli, Pope's, and the Old Black Hamburgh are types of the other class, and have their flesh juicier and more vinous: they have a hammered appearance on the berries when grown large.

Where Vine leaves are much wanted in the summer for garnishing desserts and for other purposes, it is an excellent plan to have two or three plants of hardy Grapes on the walls to furnish a supply. We have here a very hardy variety for the purpose, under the name of *Vitis odoratissima*, which is, I suppose, the *Vitis riparia* of botanists, a North American sort, with deliciously scented blossoms when in flower.

THE CULTIVATION OF THE PANSY.

I HAVE received several letters asking for information as to the best method of growing Pansies, and as I prefer making one answer do for all, I beg to trouble you with the following remarks.

Here, we winter all in cold brick pits with sliding sashes, and fill the inside with coarse ashes, of which we can procure an unlimited supply from the numerous manufactories. On this we place about 4 inches of soil, and in the autumn plant out in rows all the young plants from the cutting-beds, and those taken from the old plants; the plants are kept near the glass, as dry as possible, and perfectly hardy. We never mat or protect the frames, as I never knew frost injure a Pansy whilst in a dry state; in fact, no plant can be hardier than the Pansy, but it will not stand damp. It is, therefore, safest in wintering all florists' flowers in frames, to elevate the plants as far as possible above the ground level; let them rest on a raised bed of coarse ashes, gravel, or any other drainage. Here, where the climate is so very different to the south of England, we find it absolutely necessary to winter our stock in pits, not on account of frost, but because we suffer so fearfully from violent winds and damp. We adopt raised beds for summer growth—that is, beds raised above the surface by means of brickwork, so that in very hot weather we have no difficulty in getting rid of superfluous moisture. I have seen the most destructive results arise to the Pansy from heavy rain followed immediately by very hot weather. In my opinion it is most essential to the Pansy that it should be protected from an excess of moisture; and when the weather is very dry, of course watering can be resorted to. We plant out in April, and use a soil consisting of decomposed sods, a large proportion of matured leaf soil, with a small amount of rotten manure, all of which has been burned during the winter's frost. Some kinds of Pansies require to be grown poorer than others, in order to get them in first-class condition for the exhibition table; but this is the exception, and not the rule in Pansy growing. I object to the use of much manure; in fact, when good leaf soil can be had, manure is not wanted at planting time; and I think manure should be most carefully applied, especially in the form of guano. I have seen Pansies severely injured by the application of guano in a dry state, causing total destruction of many of the shoots, and in some cases plants. The safest plan is to use guano in a liquid form—say about an ounce to three gallons of water, and then to water round the plants and not on them.

Protection from strong sunshine should be afforded the plants, not only to benefit the flowers, but the plants as well: they dislike excessive heat, and strong, healthy-looking plants will succumb to its influence in a few hours. The protection from both hot and rainy weather which we use is a span-roofed framework of wood, permanently fixed over the beds, on which canvass is strained; the sides about 18 inches above the beds. This allows a free circulation of air underneath, and admits plenty of light. It will not do to shade too heavily, or drawing will be the result. Here, the plants remain until November, when we take them up, pull them to pieces, and place them in their winter quarters; the beds are surfaced occasionally during the summer to encourage the rooting of the side shoots.

A few words to young exhibitors. The Pansy is in perfection in May and June, and often later; but when hot weather really sets in, you will find your Pansy blooms come small and imperfectly belted. It is, therefore, not easy to show fine Pansies in the dog days; but with the cooler weather of September and October fine blooms may be had. To get these, however, cuttings should be taken off in April or May, or young pieces slipped off with roots and placed

under a hand-glass, or in a close cold frame with a north aspect; these will soon be well-rooted plants, and if planted out in June and July will throw some fine blooms for the autumn shows.

One correspondent asks me to give, through your pages, a list of twenty-four kinds best adapted for exhibition. The following are some of the best yet sent out, exclusive of the new kinds just introduced:—

SELF-COLOURED VARIETIES.

- Apollo* (H. H.), a rich-coloured shaded purple self, slightly tinged with blue in the centre, bright yellow eye. Very stout, smooth, and of first-class form.
Cherub (J. H.), yellow, with fine solid blotch. Large, stout, and smooth.
Eclipse (J. H.), gold, blotch large. Solid, and well defined in each petal.
Great Eastern (Jamieson), white, with small dark blotch. Very large and showy, often caught fine, a very telling flower in a stand.
Jeannie's Masterpiece (H. H.), almost black, with a deep purplish-blue centre. Smooth and fine form, colour very rich.
Miss Carnegie (D. L. & L.), a very rich dark self, the centre tinged with blue. Fine form and very smooth.
Prince Imperial (J. H.), a rich purple self, large, smooth. Shoulders well, and very fine form.
Princess of Prussia (D. & Co.), a splendid flower. Very large, fine form, stout and smooth, very rich maroon purple, with shaded blue centre.
Reine Blanche (R. P. & Co.), the finest white, solid blotch. Fine.
Rev. H. Dombrain (D. L. & L.), shaded purple, a decided self, large, smooth, and stout. Very fine form.

WHITE-GROUND VARIETIES.

- Annie* (Milner), heavy, rich, dark purple belting, large solid blotch, smooth and very stout. Extra fine and very constant.
Annie Wood (R. P. & Co.), very rich belting, medium blotch. Smooth and fine form.
Princess (D. & Co.), heavy purple belting, smooth, stout, and fine form, blotch large and solid in each petal.
Duchess of Kent (D. & L.), rich purple belting, very large shield, solid blotch. A large and very fine flower.
Emblem (H. H.), very rich-coloured heavy belting, blotch solid and well defined in each petal. Good form, smooth and very constant.
Isa Craig (D. L. & L.), a beautiful clean flower, medium belting. Good form and solid blotch.
Lady Lucy Dundas (D. L. & L.), heavy belting, medium blotch, smooth. Very large and fine.
Lavinia (D. & Co.), medium light purple belting, large shield, small blotch. Smooth and large.
May (R. P. & Co.), medium belting, fine solid blotch in each petal.
May Queen, rich maroon purple belting, solid blotch. Good form.
Narcissa (D. & Co.), good blotch and shield, narrow belting.
Nymph (D. L. & L.), medium rich purple belting, large shield, fine solid blotch which is well defined in each petal. Large and smooth.
Seraph (D. & Co.), medium rich velvety purple belting, blotch solid and well defined in each petal.

YELLOW-GROUND VARIETIES.

- Chancellor* (D. & Co.), gold with crimson maroon belting, blotch a little rayed.
Dr. Stewart (D. L. & L.), narrow rich dark belting, large shield, large solid blotch.
Frances Low (D. L. & L.), gold, with crimson maroon belting, large solid blotch in each petal. Stout and smooth.
General Young (Pollock), medium belting, large shield, large solid blotch. Rather long, but fine.
General Turr (H. H.), rich yellow, with heavy rich dark belting, blotch very large, solid, and well defined in each petal. Stout and smooth.
John Griffiths (Oswald), rich deep purple belting, large blotch, large shield.
Lord Clyde (W. & S.), light yellow, medium belting, very large shield, large dense blotch.
Mary Alice (Taylor), medium rich maroon belting, medium blotch. A good and very useful flower.
Miss Hill (Stenhouse), heavy maroon belting, medium solid blotch. Very large and smooth.
Mrs. Downie (D. L. & L.), medium maroon belting, large shield, fine solid blotch.
Randolph (D. & Co.), an improved *Mrs. Hope*.
Wallace (D. & Co.), deep yellow, medium dark belting, solid blotch. Very smooth and fine form.
William Bragg (H. H.), rich gold, with medium rich-coloured belting, solid blotch.
Bradford Nurseries, Shipley, Yorkshire.

WILLIAM DEAN.

SITUATIONS FOR FINE-FOLIAGED PLANTS.

(Continued from page 36.)

THE beds for these should be rounds, ovals, or irregular patches on the grass; the latter is best near water. Make the beds as rich as possible. For the sake of showing the leaves we raised the bed in flat terraces; also to retain the manure water, of which they cannot have too much. With all due deference to the taste of our Paris friends, by no means edge them with flowers, it takes from the outline of the leaves where the grass shows them off to advantage.

Considering the great extent this sort of plants is now used for decorative purposes in and around Paris, it is surprising the limited variety: I therefore hope parties will strike out fresh courses for themselves among the many beautiful large-leaved plants neglected at home. For example, a group of the Spanish Cardoons among these named was the most admired by parties who did not know its culinary properties. Why this should be a drawback I do not know, unless the same rule applies to this as to the Parsley in the ladies' nose-gays.

Among the variegated foliaged shrubs *Negundo variegata* is most used; next, the Red Virginian Maple, variegated *Syringa*, and variegated Elder. The latter is rather a strong grower, but very pretty from its occasionally throwing white shoots. The Red Elder is not red in England at any time. The *Negundo* wants something to show it off. Like most people in England who grow the better sorts of *Rhododendrons*, we like to give them plenty of breathing room. It occurred to us that by introducing a few of the *Negundo* and Maple into the spaces, the green of the *Rhododendron* would take the sickly objection to this away. This we did two years ago with complete success. They are not strong growers, and only budding when the *Rhododendrons* are in bloom, adding interest for the remainder of the season, more particularly if the surface of the beds is covered with the beautiful *Vinca variegata*.

Cleveland.

J. FLEMING.

THE NEW FUCHSIAS.

It may very well be asked, What has become of all the seedling Fuchsias which have been sent out during the last four or five years? How is it that we so rarely meet with a new variety at any of the horticultural meetings, either in London or in the provinces? This is a subject that has completely puzzled me; and I cannot understand why, among all the novelties included in what are termed florists' flowers, we so rarely see a new Fuchsia. It cannot be that novelties are not yearly produced; the spring catalogues of the principal growers of this elegant flower prove this. How, then, is it that we do not see them at our exhibitions? It is somewhat remarkable that since the year 1858 we have seen nothing exhibited superior to *Souvenir de Chiswick*, *Little Bo-Peep*, and flowers of that stamp among the red varieties; nor since then have we seen any advance upon *Fair Oriana*, *Fairest of the Fair*, and *Silver Swan* among the white varieties.

Mr. Banks, the king of Fuchsias, has not abated his zeal and love for this flower we well know, from the splendid varieties advertised as raised by him. Mr. G. Smith, of the Hornsey Road, another successful raiser of Fuchsias, still continues to send out every year noble varieties of his peculiar style. But who ever sees them in public? It would occupy too much space,

but it would not be uninteresting, to make out a list of the seedling Fuchsias advertised during the last five years which have never made their appearance on the public boards.

That new and beautiful varieties exist, which are improvements on the older kinds, I allow. What, then, can be done to induce these most exquisite of floral beauties to present themselves for public admiration? I can only suggest one reason why gardeners do not take as much interest in the cultivation of the Fuchsia for exhibition as they do in that of almost every other flower. It is this: The specimens sent to our horticultural meetings for competition are usually (I do not say always) tall, gaunt, woody plants, three, four, or even five years old, and resembling Poplar trees, with diminutive foliage and insignificant flowers; indeed, with nothing to recommend them beyond (if such be a recommendation) the huge pots in which they are grown. I do not intend to say that a fine well-grown Fuchsia tree is not very ornamental in a conservatory; but no one in his senses would expect to find the same excellence of flower or foliage in a plant of this age as in one of more recent growth, nor is it fair to put it in competition with the same.

The remedy I propose is this: Let prizes be offered for Fuchsias to be exhibited in 8 or 10-inch pots, the plants of not more than twelve months' growth, and we shall then soon be gratified with the sight of many new Fuchsias. That gardener who cannot make an elegant and fit specimen for exhibition in six or eight months has something yet to learn. Let the prize be offered, and I have no doubt that many Fuchsia-growers will compete.

May we not hope, this eventful season, to see some enterprising amateurs coming to the rescue of this neglected flower, and proving to the world at large that the beauty and elegance of a Fuchsia consist not in its old age, but in the prime and vigour of its youth? We shall hope to be able to form an opinion on the merits of the numerous double varieties sent out, some of which, if we may judge from their coloured representations, are marvellous indeed. We not unfrequently meet with persons who object to the present form of the flower of the Fuchsia; the wide expanding corolla and reflexed sepals are offensive in their sight. It would be interesting to have specimens of the older kinds, *F. gracilis*, *virgata*, or *Groomii*, exhibited against the modern form. I feel quite certain of the result. The two forms of flower not inaptly represent two styles of well-dressed ladies, the one with, the other minus, a crinoline.

X.

ON PEARS CRACKING.

It is well known that some kinds of Pears are more liable to crack during their growth than others; in general, the rough or brown sorts are more subject to this than the smooth green ones. Some of these, however, are diseased in cold wet seasons; for instance, the Glou Moreceau. But this excellent Pear is sometimes of a russet colour, spotted by mildew; while the smooth green Napoleon seldom cracks, even in seasons when the Gansel's Bergamot and common Crasanne are rent open to the core. This happened in the cold wet season of 1860, while the few fruits on the same trees in the succeeding fine autumn were sound. From this it may be inferred that the brown kinds of Pears hold more moisture upon their rough skins to encourage the growth of mildew than the smooth ones which produce the cracks on them. As these swell or grow larger, the diseased or mildewed spots burst into small fissures, which gradually increase in size as the fruit comes to maturity. Sometimes the cracks are star-shaped, and at others in rings half round the fruit, especially on the sides

exposed to the sun. The same, however, happened, though in a less degree to the parts of the fruit which touch the wall, or when they hang in clusters with leaves between them, which tends to hold the moisture.

In confirmation of what I have said I may mention that, some years back, I observed a Crasanne Pear tree, on the south and west side of a cottage. The fruit was sound under its eaves, while those exposed to drip were cracked, and, in fact, worthless.

Therefore, if I am wrong respecting mildew being the cause of Pears cracking, I may safely state that shelter is the only remedy, which is not practicable with trees on open walls as with those in orchard-houses. The fruit from these is seldom equal in flavour to that ripened in good seasons in the open air.

Cossey Park.

J. WIGHTON.

MAY'S PATENT FLOWER-POT.—There is a newly-invented pot advertised lately, with two rims on the outside for holding water, its appearance reminding one of the flounces on a lady's dress. The object of this invention is stated to be the prevention of injury to the roots in hot weather. If the advertiser of this article will stand a few hours in the sun and wind dressed only in a wet sheet, he will, from personal experience, have some idea perhaps of the advantages of his new pot. I do not intend trying the experiment myself, for fear of death or rheumatism.—J. R. PEARSON, *Chilwell*.

TRANSPARENT GAGE PLUM.

WITH AN ILLUSTRATION.

SYNONYME.—*Reine Claude Diaphane*.

THE Green Gage is one of those Plums that reproduces itself from the seed and furnishes varieties but slightly removed in characters from itself; and hence we have several forms and degrees of earlier Green Gage and later Green Gage, but all retaining more or less the main features and excellent qualities of their parent. Among the many new forms of this popular fruit that have been introduced there is none that is more deserving of notice than that which forms the subject of our present illustration.

The fruit is larger than that of the old Green Gage, being $1\frac{1}{4}$ inch high and $1\frac{1}{2}$ inch broad, round and very much flattened, being in fact distinctly oblate and having a depression on the apex, from which issues a shallow but distinct suture. Skin very thin and quite transparent, green or yellowish-green, becoming of a clear amber when fully ripened, dotted and speckled with bright dark crimson. Stalk thin, about half an inch long, smooth, and inserted in a small, rather deep cavity. Flesh greenish-yellow, tender, and very juicy, with a rich, aromatic, honied juice. The stone is roundish.

A dessert Plum of the greatest beauty and most exquisite flavour; ripe in the beginning and middle of September. Its great peculiarity is the transparency of the skin, which is so great as to show the texture of the flesh distinctly through it.

The tree, like that of the old Green Gage, is of medium size, hardy, and healthy. The shoots are long, stout, and smooth; buds conical, set on prominent bases. Leaves obovate, smooth above, somewhat downy beneath, and not deeply toothed. The flowers are similar to those of the old Green Gage.

Our figure was taken from specimens obtained from Mr. Rivers, of Sawbridgeworth.



Transparent Gage Plum.

CHERRIES UNDER GLASS.

I AM a great lover of birds and also of Cherries; but, in the last-mentioned live item, the birds beat me hollow, for I seldom or never see one ripe on my standard trees in the open air, and if I protect my dwarf bushes with nets, the blackbirds and missel thrushes tear them open with their strong claws, and chatter defiance when I approach them. I began quite to yearn for ripe Cherries and to cast about how I should procure them, when the orchard-house culture of them occurred to me. I therefore consulted our oracle, and built a small span-roofed house, 25 feet by 14, 9 feet high to the ridge, and 5 feet high at sides. As it is not in an ornamental part of my garden, I had the sides and ends made of three-quarter-inch boards, with a shutter on hinges a foot wide on each side. I made a path 3 feet wide along the centre, and planted on each side of it a row of nice pyramids of the compact-growing varieties, such as the May Duke, Archduke, Duchesse de Palluau, Empress Eugénie, Reine Hortense, Nouvelle Royale, Royal Duke, and Coe's Carnation, all budded on the Mahaleb stock and planted about 2 feet 3 inches apart. Behind them, next to the sides, I placed some low pyramids and bushes of the Bigarreau and Heart Cherries budded on the common Cherry-stock; and, as these Cherries are all vigorous growers when planted out, I had them potted in 13-inch pots in some light sandy loam and manure from an old hotbed, two-thirds of the former to one of the latter, well rammed down, so that the surface of the earth was quite hard. On this hard surface I placed in March some manure 2 inches thick. My success last summer (1861) was quite refreshing, for the very few Cherries on my trees in the open air were quickly despatched by my singing friends, the blackbirds and thrushes; but my house full of fine ripe fruit was effectually "tabooed" in this way. As soon as my Cherries began to colour—i. e., when boys gobble them down declaring they are ripe—I had the shutters opened and some iron wire netting, with meshes about an inch in diameter, placed over the apertures occupied by the shutters when closed. This was nailed firmly inside to the sides of the house, so as effectually to resist the fingers of boys and the claws of birds. By placing it inside, it does not hinder the shutters being closed when the house requires fumigation, which with Cherries, so liable as they are to be infested with black aphid, is frequently necessary. This is one of the reasons why I recommend Cherries to be cultivated in small houses appropriated to them only, rather than in large houses with other orchard-house trees. Another reason is, that they require less syringing than Peaches and Nectarines, for a thorough syringing once a-week before 8 A.M. during the growing season will keep the leaves and fruit free from dust, and as soon as the latter commences to colour this may be discontinued, or the large and fine sorts, such as the Elton, Bigarreau, and others, are apt to crack. Cherries while ripening delight in a dry warm atmosphere, such as they rarely have in England in the open air, but which in an orchard-house exists in perfection.

In the commencement of this article, I have named such compact-growing sorts as may be cultivated as pyramids and planted out on each side of the central path. I will now point out some varieties which succeed best when grafted on the common Cherry-stock, and which are of too vigorous habits to be planted out in a small house, but which may be cultivated with great success in 13-inch pots.

The most select of this class are the Elton, Downton, Bigarreau, Black Tartarian, Belle d'Orleans, Early Purple Guigne, Florence, Knight's Early Black, Bigarreau Napoléon, Governor Wood, an American sort, and some of the French Guigne Cherries which do not succeed well in the open air in England, such as the Guigne Grosse Noire, Guigne Grosse Rouge, Guigne Rouge Tardive, Guigne Marbrée Précoce, Guigne Marguerite, and some others. The Late Duke and Morello should not be omitted, for if kept from wasps by the trees being enclosed in bags of tiffany, they may be had in perfection till late in October.

All Cherries under glass, whether planted out or in pots, must be under one system of pruning or rather pinching, for as soon as a young shoot has made five or six leaves its top should be pinched or cut off to three full-sized leaves, not counting two or three at the base, which are generally small and without buds in their axils. This pinching process must be continued all through the summer till the trees cease to make young shoots. My Cherries commenced to ripen last year (1861) something in the following order:—The Empress Eugénie was the first to show colour, followed closely by May Duke; but the first that ripened were the Early Purple Guigne and Belle d'Orleans, and this was the first week in June, or thereabouts. The latter kind is remarkable for its sweetness; but it is not so piquant as the former. Empress Eugénie is much like the May Duke—not quite so rich; but, from its ripening eight or ten days before it, it is valuable, and it bears abundantly. Among early kinds Knight's Early Black takes a high rank, and that very old and rather acid small Cherry, the Early May, is really worthy of a pot, for it ripens very early, and in a sunny season in May, thus doing justice to its name. The Elton is remarkable for its fertility and the richness of its flavour when grown under glass; and the Florence, with its very firm flesh, when fully ripe in August, is excellent. I need not, however, particularise

any further, for, as far as my experience has gone, all Cherries, when well ripened, are most agreeable. The great satisfaction a Cherry-house gives is the certainty of your fruit being safe from boys and birds; and I felt pleasure last year when, towards the last week in May, I saw my trees full of fruit, just showing their Cherry summer-reminding tints—put a padlock on the door and put the key in my pocket, only to be delivered occasionally to a trusty man, who gave the trees water when they required it. My Cherry-eating visits to my house continued till September, and it was really a pleasure—although a small one—to watch the progress of my trees, to taste the different varieties, and to take notes as to their periods of ripening and their qualities. As small pleasures help to brighten the path of life, allow me to advise some of your readers to build a Cherry-house, and try and find one most agreeable source of satisfaction.

CERASUS.

IN-DOOR GARDENING.

THE papers that have appeared under this heading in the *Gardeners' Chronicle*, have so completely put in the shade my poor attempts in the same direction, that it is with some hesitation I resume my pen and the subject. And yet the smallest attempt in this way, even if the results be meagre, is worthy of record; and though the fruits of my attempt may not equalise the large hopes excited at the outset, they are results notwithstanding, and, in spite of my adverse "surroundings," as a whole, better than I anticipated. The coldest blasts of the wintry wind seemed to have assailed my window—to me conservatory, greenhouse, and all. They appeared to concentrate their energies there, as if it was some important position that should be carried by storm at all hazards. When the sky was clear, and the atmosphere under its best conditions, no gleam of sunshine glanced in upon my mimic show-house to neutralise the chilling influence of "bold Boreas," and I seldom had a fire even when the weather was the coldest and most severe. Did I open my window ever so little to get some fresh air (too often fresh only in the article of acquaintance), then would a shoal of blacks put in appearance, and, perching on the foliage and flowers of my pets, superadd to Nature's artistic excellence a shading not her own. Morning and night had I to puff away these unwelcome lodgers, sooty trespassers on one of Flora's preserves.

The majority of my Hyacinths in glasses are in flower. Those in pots are some distance in the rear. Florence Nightingale, Single Red, led the way, as did her great original in the work of mercy that has made her name a "household word" throughout the land. I had this variety for l'Étincillante, a magnificent deep carmine, but it was not true. It had a fine spike of flower; colour a delicate pink, with midrib of carmine to each division of the bell. It is a variety admirably adapted for glasses, and has very short stiff foliage. Quite a group contended for the second place. They were Staaten General, Alba Maxima, and Grande Vidette, Single Whites; General Lauriston, Single Blue, a fine dark with light centre, good for glass; Norma and Robert Steiger, Single Reds; and Othello, Double Blue. Excepting the last-named they have fine spikes of flower. A later group nearly expanded contains Pavilion Blanc and Mont Blanc, Single Whites; two very good varieties, La Reine des Beauties, Single Red, a very delicate blush with close small spike; Blanchard, Double White; and Vulcan and Uncle Tom, Single Blues; the latter a fine dark purple variety. The remainder have scarcely commenced to show colour. I made a trial with a little guano placed in the water, but shall not use it again; it had an injurious effect on the roots. As soon as colour presented itself I filled the glasses with water up to the brim, nearly submerging the bulb; and it is really amazing what a quantity of water a bulb will absorb in a short time. On a soup-plate, and planted in silver sand, I have a group of six Hyacinths of various colours in flower, having an edging of Crocus, mixed varieties, just coming into bloom. I have fine heads of bloom from two Polyanthus Narcissus—namely, Florence Nightingale and General Windham, said to be two distinct varieties, but identical in every respect. They are in pots and surrounded with Crocus in flower. From the centre of a circle of Single Van Thol Tulips, all in flower, rises a large truss of Bazelman Major Narcissus. This group pleases me vastly. I like the contrast of the Red Tulips with the light-coloured flowers of their loftier colleague. I have a pot of Sir Walter Scott Crocus, a large violet-striped, that is literally a mass of flower. A pot of Lilaceus Superbus has its glory fast departing. Near it is a pot of a white kind rapidly breaking into flower. I cannot get them to expand. Could Sol but look in upon me to give a finishing touch to what has already been done, the Crocus would gladly unfold themselves that his beams might kiss the delicate stamens they now so carefully hide from my view. Tulips in pots are yet in abeyance. I have kept them back, so that they may succeed the present generation to which I have also acted in one aspect of the character of sponsor.

But I am also operating with a view to provide some flower for summer. I have a *Tropæolum Jarrattii* making vigorous headway, but will be late in flowering if I can only succeed in doing so. I have potted some dwarf Iris as an experiment, and a bulb or two of

Japan Lilies, some *Ranunculus* and *Tigridia pavonia*. I intend also to make an attempt with some *Gladiolus* in pots, in the hope that I shall not altogether fail. If failure comes, the very attempt to secure its converse will yield some degree of the gratification sought to be acquired in the larger result, and I can at least deserve the success it is not in mortals to command. Quo.

THE SPRING EXHIBITION OF THE ROYAL HORTICULTURAL SOCIETY.

THE opening Exhibition of the Royal Horticultural Society took place on March 19th, the primary features being that of Hyacinths and Camellias. The former were finely shown, and must have afforded a rich treat to the lovers of this favourite spring flower.

Mr. James Cutbush, of Highgate, was first, with a magnificent collection of eighteen varieties, all single flowers. Of *Deep Reds*, there were *Lina*, very bright and fine; *Lord Macaulay*, deep carmine, very handsome; *Princesse Clotilde*, very fine; *Howard*, rich fiery carmine; *Von Schiller*. *Light Red and Blush*.—*Aurora*, a yellowish light pink; *Gigantea*, delicate blush, very large spike; *Grandeur à Merveille*; *Koh-i-noor*, fine pink. *Whites*.—*Orondates*, *Mont Blanc*, *Mandoline*. *Deep Blue*.—*Prince Albert*, a wondrous spike, rich glossy black purple; *General Havelock*, another fine dark blue; *Argus*. *Light Blue*.—*Grand Lilas*; *Haydn*, mauve, or violet magenta, a fine variety, very novel and striking; and *Ida*, a fine bright canary yellow. Mr. W. Paul, of Waltham Cross, was second, with *Deep Blue*, *Prince Albert*, *General Havelock*, *Argus*. *Light Blue*.—*Charles Dickens*, *Baron von Tuyl*, *Orondates*, *Grand Lilas*. *Deep Red*.—*Lord Macaulay*. *Light Red and Blush*.—*Lord Wellington*, *Tubiflora*, *Grandeur à Merveille*, *Lord Wellington* (double, a very fine spike), and *Madame Van der Hoop*, *Mont Blanc*, and *Alba Maxima*, *Whites*. But one double variety was exhibited in the two collections. For the prizes offered by Mr. Cutbush, Mr. Young, gardener to R. Barclay, Esq., Highgate, was placed first with twelve fine varieties. They comprised, of *Deep Reds*, *Lina* and *Von Schiller*. *Light Red*.—*Lord Wellington* (double); *Susannah Maria*, *Grandeur à Merveille*, *Madame Hodson*, and *Gigantea*. *Deep Blue*.—*Argus* (a very fine spike, but not sufficiently developed), *Prince Albert*, and *General Havelock*. *Light Blue*.—*Grand Lilas*; and, *White*, *Mont Blanc*. With six varieties Mr. Young was again first with *Prince Albert*, *Charles Dickens*, and *Mrs. B. Stowe* (a bright single red), *La Dame du Lac* (a light red), and *Madame Van der Hoop*; second, Mr. Carr, gardener to B. Noakes, Esq., Highgate, with *Princesse Clotilde*, *Aurora*, *Lina*, and *Sultan's Favourite* (single red); *Queen Victoria* (single white); and *Argus* (blue). With six new varieties Mr. Cutbush was again first with *Pelissier*, a brilliant fiery single red, very striking; *Reine des Hyacinths*, single red, deep carmine, and fine spike; *Duc de Malakoff*, single red, nankeen, striped with reddish-orange; *Sir Bulwer Lytton*, a large double blush, but coarse; *Paix de l'Europe*, a single pure white; and *Lord Macaulay*. Second, Mr. Young, with *Milton* (a fine light single red), *Aurora*, *Haydn*, *Paix de l'Europe*, *Miss B. Coutts* (a large coarse single white), and *Princesse Clotilde*. Third, Mr. W. Paul, with *Lord Macaulay*, *General Havelock*, *Honneur d'Overeen* (single crimson lilac), *Von Schiller*, *Alba Maxima*, and *Cosmos* (a light carmine-striped single variety).

A good quantity of Tulips were staged; but they were far below the Hyacinths in point of merit. Mr. Cutbush was first with 24 pots, six distinct kinds. They were, *Royal Standard* and *Bruid van Haaren*, two pretty white-ground kinds feathered with scarlet; *Vermilion Brilliant* and *Scarlet van Thol*, both very showy and similar, except in point of size; *Canary Bird*, and *White Pottebakker*. Mr. Young was first both with 18 and 12 pots. Exclusive of those just named, he had *Tournesol*, a showy double variety; *Yellow Tournesol*, and *Imperator Rubrum*, both doubles; and *Gold Prince*, a small single yellow.

It was somewhat surprising that so few Camellias were present, none being staged for the prizes offered for two groups of these. A very handsome bright pink variety, from Mr. John Standish, of Bagshot, named *Sarah Frost*, was placed first in the class for a single plant. Mr. Salter, of Hammersmith, was second; and Messrs. Henderson, Edgware Road, third.

Mrs. Conway, of Brompton, had some Lilies of the Valley in pots, and a large quantity of the same came from the gardens of the Society.

Two groups of *Amaryllis* were staged. The best was from Mr. Parker, of Tooting; the other from Mr. Lakeman, of Hendon. They were very handsome, but wanted distinctness and brilliancy of colour.

Some very pretty Chinese Primroses enlivened the Exhibition with their gay flowers. R. Hudson, Esq., of Clapham, was first with three plants, each of white and purple; they formed perfect bouquets, while the quality was first-rate. Messrs. Dobson & Son and Mr. Cutbush also showed, and Messrs. E. G. Henderson & Son exhibited a group called *Primula sinensis filicifolia alba*, with long, serrated leaves, very like a *Lomaria*. Some double white and purple varieties also came from the same.

Some pretty collections of spring plants in flower (not forced) came from Messrs. Veitch and Son, Messrs. J. & J. Fraser, and Messrs. A. Henderson & Co. The prizes were awarded in the order of the names. They comprised Rhododendrons, Epacrises, Acacias, Eriostemons, Camellias, &c.

In the class for forced plants, Messrs. Fraser were first with Azaleas, Rhododendrons, Gueldres Roses, Persian Lilacs, Dielytras, Geraniums, &c. The plants in these two classes formed very effective backgrounds to the Hyacinths, Tulips, and other smaller collections.

A goodly number of miscellaneous plants were produced. Foremost were two large collections of Hyacinths from Messrs. Cutbush and W. Paul, the best of which were duplicates of those already mentioned; some cut Roses from Messrs. W. Paul and Paul & Son; a collection of stove plants from Messrs. F. & A. Smith, of Dulwich; and also a batch of pretty seedling Cinerarias. Among them was Mrs. Moore, a heavy crimson-edged variety; Cadet, a brilliant crimson self; Prince of Hesse, a very large purplish-blue-edged variety; Prince Alfred, a bright crimson self; and True Blue, a blue-edged kind. Mr. R. Parker had Rhododendron Countess of Haddington, a handsome light-flowered species; and a handsome Cypripedium. From Messrs. Veitch & Son came a collection of rare plants. The most noticeable were Rhododendron Princess Alice, a hybrid between Edgworthi and Ciliatum—colour, very delicate blush; R. Sesteiranum, a fine hybrid between Edgworthi and Globosa; Acacia eriocarpa, covered with large golden ball-like flowers; Camellia Comtesse Lavinia Maggi, a very striking rose-flaked kind, &c. Some choice ornamental plants were sent by Mr. W. Bull, of Chelsea. Foremost was a well-grown specimen of *Cyperus alternifolius variegatus*, a beautiful ornamental-foliaged plant; *Cordylina indivisa*, *Coleus Verschaffeltii*, some pretty variegated plants from Japan, &c. Mr. C. Turner, of Slough, sent two pretty seedling Cinerarias—viz., George Eyles, a bright lilac purple self; and Mrs. Harvey, a heavily-tipped bright purple, very much the style of Scottish Chieftain, but greatly in advance of it. A perennial Cyclamen, from Mr. Holland, gardener to R. W. Peake, Esq., Hounslow, attracted some considerable attention—it was said to have been in continuous bloom for two years past.

Messrs. Carter & Co., of Holborn, exhibited some plants of a double-flowered Fuchsia, Meteor, for its peculiar foliage—a bright green, shaded with dark bronze. It will certainly be very novel if growth and a colder atmosphere do not change its character. Mr. John Salter, of Hammersmith; Messrs. Downie, Laird, & Laing, of Edinburgh; and others also furnished miscellaneous plants.

There was one great drawback: The Council-chamber in which the Exhibition was held was far too small to afford the company opportunity to inspect the plants. Were it not that the conservatory was arranged with admirable nicety and effect, and formed in itself no inconsiderable exhibition of spring-flowering plants, it would have afforded much more scope both for the productions and the company, for both were inconveniently crowded together; but we would rather that the conservatory were left as it was, and some other provision were made for these "little goes" in the arcades or any other convenient place.

Quo.

CELERY BLIGHT, THE CAUSE AND PREVENTION.

HAVING seen this excellent and most valuable vegetable so dreadfully blighted the past summer, and in some places completely destroyed, and to prevent such another recurrence, it induced me to offer a few remarks on the cause and prevention. First, I will state the cause, which may not be known to some of your readers. It is caused by a little black fly, similar to a house fly; the name of which is *Tephritis onopordinis*. It lays its eggs in the leaves and the larvæ feed upon the tissue, causing large blisters. The larvæ feed in those blisters, which keep getting larger, and by the time the larvæ are about a month old the blisters decay and the larvæ fall to the ground and change to chrysalis, and remain till the spring, when again they take to their wings. They commence laying their eggs in June, and continue till the autumn. Now for the prevention. It is to keep the fly off your Celery by making it unpleasant for them, and this may be done by the following mixture:—A pailful of soapsuds; put in it one handful of lime, the same of flowers of sulphur, and one of soot.

NATHAN COLE, Gardener to Mrs. Silver, St. John's Wood.

STANDARD FIGS.—We hear that at Hickleton, in Yorkshire, the seat of Sir Charles Wood, Figs are grown largely in pots, and with great success under peculiar treatment. The trees are low standards, with stems from 2 to 3 feet in height, and are treated as pollards, the heads at pruning time being cut close in, leaving the crop to be furnished by the annual shoots thrown out from the stump. We hear the crop (which ripens in September, the trees not being forced), is both abundant and very fine in quality. Can any of our readers state anything in addition to the above very interesting feature in Fig culture?

EFFECT OF CLIMATE UPON FRUIT.

THE reviewer of Decaisne's beautiful work, "*Le Jardin Fruitiers du Museum*," in *Gardeners' Chronicle*, page 1049, of last year, makes the following remarks on Napoleon Pear:—"This Pear has been for many years so well known in this country, that we need not give the description, which is very correct in the work before us, except as regards quality. This Professor Decaisne does not speak so highly of as we should of fruit grown in this country, especially on a standard in a good season. 'The fruit,' he says, 'as variable in flavour as in form, is rarely of first-rate quality.' The writer further says, 'But, perhaps, the tree producing the specimens had been grown in a soil too highly enriched. The Napoleon Pear is one of those sorts that will not bear to be grown to a large size in very rich soil without great deterioration of flavour, or, perhaps, a dry continental summer may not suit it.' The latter I should say was the true cause, as we find this Pear in America quite as variable and as uncertain as Professor Decaisne has described it. There are many other varieties of the highest repute, in France and England, equally as unreliable. *Passe Colmar* may be named as one; so also of *Beurré Rance*, and others of your best fruits. On the other hand, many varieties are improved by our warm dry summers, whilst we possess many native seedlings of first-rate quality that fill their places."

STRAWBERRIES.—A writer in the *Gardeners' Chronicle* not long since, expressed surprise why British Queen Strawberries were not grown in the United States. The reason why they are not cultivated, is the very best of reasons. They will not succeed. I have had beds of British Queen in my nursery the past ten years, and have never had a dozen good berries in that time. This variety and many of the same race, burn sadly in our hot dry summers. Not only will the foliage burn off the plants, but when we get a drought of any length at midsummer, plants will burn in the ground, so that I have occasionally nearly lost my stock. Keens' Seedling, *Carolina Superba*, and many others are equally uncertain. They are also bad setters in spring, the flowers proving abortive, the latter caused by the sudden change of temperature in spring from cold to an English summer's heat when they are in bloom, giving no time for the formation of the fructifying organs. Some English varieties succeed as well here as in their native home. Among these are—*Alice Maud*, *Trollope's Victoria*, *Rivers' Seedling Eliza*, the latter the most successful large Strawberry we have as yet had from Britain. Many French and Belgian sorts also do well—such as *Vicomtesse Hericart de Thury*, *Triomphe de Gand*, *Comte de Flandre*, *Jucunda*, the foliage of these latter is as thick as leather, never burns under our hottest sun, or is injured by our most intense cold. They are also exceedingly productive, setting their crop of blooms well.

Washington City, D.C., U.S.A.

JOHN SAUL, Nurseryman and Seedsman.

NOTES ON NURSERIES.

MR. STANDISH, BAGSHOT.—The many interesting new plants recently introduced from Japan by Mr. Fortune are now undergoing, at the hands of Mr. Standish, the necessary processes of multiplication, previous to their distribution to the public. Among these may be specially mentioned a variegated variety of *Thujopsis dolabrata*, a hardy Conifer of extremely elegant character, and in this new variety having the flattened branchlets freely and elegantly blotched with white. Other strikingly handsome plants were *Osmanthus aquifolius variegatus* and *O. aquifolius variegatus nanus*, two beautifully variegated shrubs related to *Olea*, having very fragrant white flowers; and *Eurya japonica latifolia variegata*, a handsome shrub like a small-leaved *Camellia*, in which the foliage is bordered with creamy white, and while young flushed with a fiery orange tint; a charmingly variegated *Saxifraga neriophylla* near *sarmentosa* has the leaves marked with broad sections of delicate pink. Mr. Fortune's collections include several Japanese varieties of *Chrysanthemum*, among which are some with flower-heads wholly unlike those cultivated in Europe, the florets being tubular, with a dragon-like gaping mouth, or in other cases long, narrow, and almost thread-like; a finely striped one is also reported to be in the collection. All these we may expect to see flowering next autumn. Mr. Fortune has also brought over several *Liliums*. One of these, *L. Fortunei*, has already flowered, though weakly; it has bright yellow flowers, spotted over with deep red brown, and will doubtless prove a distinct and pretty plant when better established. Another, allied to *L. speciosum*, is said to have immense flowers, very boldly blotched with red. Among Conifers there are large quantities of seedling plants of *Sciadopitys verticillata*, the grandest of all the Japanese Firs. Of Ferns Mr. Standish has some extraordinary fine plants, with tree-like stems, of *Todea hymenophylloides*, and of *Lomaria discolor*, both remarkably handsome, hardy, New Zealand species; also *Cyathea Smithii*, the most elegant of all the introduced species of that genus. Most of the New Zealand *Hymenophyllums* are also cultivated very successfully; and we saw here the very rare *Gleichenia alpina*, which

may be considered as a miniature form of *G. dicarpa*, to which it is most nearly allied. Among hardy evergreen shrubs, standing in the open air, or at least barely sheltered by an incomplete tiffany covering, *Berberis japonica* and *B. Bealii* are specially worthy of note, the latter, perhaps, rather the faster grower of the two. They form tall evergreen shrubs, with large pinnate leaves, having broad leaflets like Holly leaves, and at this season produce plentifully, at the ends of their branches, numerous stiff erect racemes of yellow flowers, which are deliciously rose-scented.

Mr. Standish is now engaged in forming a very extensive nursery at Ascot, in a situation which seems to be exceedingly well adapted for the purpose, having considerable variation in respect to elevation and aspect, and both loamy and peaty soils of fine quality. Here it is intended to carry on extensively the culture of the superior kinds, of fruits—such as Pines, Grapes, Peaches, &c., and the first of a series of houses to be devoted to this purpose is already nearly completed. This group of forcing-houses it is intended to heat by means of hot water, and Mr. Standish has designed and erected a very powerful boiler of large capacity formed entirely of 2-inch iron pipes, with the siphon bends necessary to connect them. These pipes represent a huge box or trunk, which forms the furnace, and in which it is intended to burn the common turf fuel of the district. Mr. Standish attaches, and we think justly, great importance to having a thorough command of bottom heat; and in the construction of these houses this is not to be lost sight of. In this new nursery it is designed to grow extensively the fine new varieties of *Gladiolus*, for which the Bagshot nursery had already become famous, and the popularity of which seems to be on the increase.—M.

THE WAY TO BLOOM ISABELLA GRAY AND OTHER YELLOW ROSES.

SOME time back I received a letter from Mr. Kingsbury, of Bevois Valley Nurseries, near Southampton, on the above subject. I regret that I cannot find his letter, so as to give your readers his experience in his own words. I must, therefore, trust to my memory, and I believe that the following is correct:—He says that he uses a little salt in dry summers over the ground, and that it causes *Isabella Gray* to give her flowers, and also causes other yellow Roses to give better flowers. He says, that he took some beautiful blooms of *Isabella Gray* to Mr. Rollisson, Nurseryman, of Tooting, and that neither he nor they had ever seen better blooms of *Isabella Gray*. Such is his testimony. I believe that *Isabella Gray* is not suited to out-of-doors culture generally. Mr. May, of Blandford, bloomed it under glass, and told me that it was better than the *Cloth of Gold*. I doubt not pot culture, with new maiden earth without any dung or strong stimulant, under glass, will be the surest way to obtain its flowers. It is a very tender though free-growing Rose. *La Boule d'Or* is very hardy, and has wintered perfectly intact out-of-doors with three tiles over its roots and a little straw tied round the base of the plant. The exposed tops also suffered no damage. Its wood is as hardy as that of *Gloire de Dijon*, which is one of the best and noblest productions of France.

Rectory, Rushton.

W. F. RADCLIFFE.

DESTROYING ANTS.

READING in the *FLORIST AND POMOLOGIST* of last month the article "Destroying Ants" induced me to write the following methods of destroying or driving them. If Mr. Pearson will get a few toads and put into his houses they will very soon "catch 'em and kill 'em" for him without the hammer. If they climb up the stem of any tree, place three boards (or two if against a wall), about 2 feet long, so as to form a triangle round the stem where they run up, place a toad there, and soon he will eat them all as they come down or come to go up. If they have holes on the level ground or floor, get some dry sand, sifted fine, and place over the holes so as to fill them. Keep the holes covered as they carry it away, and they will very soon leave the place; or if their holes are in a wall, or where you cannot put sand on, plaster the hole up with "Gishurst." They will not face this; or, if their holes are not near the roots of any trees, pour a strong mixture of "Gishurst" into them, and you will see very few ants there after.

It would increase the value of your excellent periodical if your contributors were to be a little more definite in their dates and figures. For instance, in the Number for last month on the "Fancy Pelargonium," a very plain and well-written article, Mr. Bailey says, "The cuttings should be moderately firm and well-ripened shoots." At what time may we expect to get "moderately firm cuttings?" Perhaps in May, but we must wait until the end of June or July for "well-ripened shoots." Will Mr. Bailey be so kind as to say what week

in what month he would advise the cuttings to be taken, supposing the plants to be at their best the first week in June?

Again in Mr. Barnes' article on the much-neglected Fig, he says, "Cut a trench round it a few feet off." How many feet does he mean? three or ten. Your contributors take it for granted that your readers know many more details than they really do.

D. WALKER, *Gardener, Kingston Park, Tunbridge Wells.*

DESTROYING ANTS.—If J. R. Pearson puts a little treacle in a gallipot, and plunges the pot in some mould so as they can get to the top, they will go down after the treacle never to return; or he may try Gishurst Compound, four ounces to one gallon of water, which kills them instantly.—NATHAN COLE, *Gardener to Mrs. Silver, St. John's Wood, N.W.*

OBITUARY.

It is with deep regret we record the death of EDMUND FOSTER, Esq., of Clewer Manor, near Windsor, the eminent cultivator of the Pelargonium, which occurred on the second ult. For many years he has been a most successful grower of his favourite flower, as the splendid collections of specimen plants he has annually exhibited at the metropolitan shows, where he has almost always taken the first prize in the amateurs' class, have abundantly testified. He was also a raiser of seedlings on a large scale, and his successes in this way entitle him to a first, if not to the first, place in the list of those who have laboured for the improvement of the Pelargonium.* The kindness with which he was ever ready to show his flowers to all who desired to see them will long be remembered by those who have enjoyed that pleasure. He was also a liberal and discriminating patron of the fine arts, and possessed many first-rate pictures.

* Twenty years or more since Sylph was the admiration of all that took an interest in this class of plants. Some years after Orion was equally popular. Lord Clyde at the present time is universal, to say nothing of the numerous other fine flowers that have had their day.

CALENDAR OF OPERATIONS.

CONSERVATORY.

The permanent plants here will now be in active growth; their wants must, therefore, be well attended to. Regulate and tie-up climbers as they advance in growth. Water effectually plants in borders when they require it. Syringe on fine days with clean water. Early-flowering plants, such as Acacias, should be pruned when out of flower. Give abundance of air when the state of the weather permits. On bright, sunny days shading will be necessary for a few hours to prolong the beauty of the plants in flower; it should, however, be removed early in the afternoon, in order that the perennial plants may make good, strong, healthy growths. Watering must now be attended to daily; but it must not be done in a careless, indiscriminate manner. Plants that are in a vigorous state of growth, will require much greater supplies than plants that are making little, or only weak growth. Indian Azaleas and Cinerarias will now be a leading feature here. Remove all plants as soon as they are past their best. Attend to cleanliness and order.

GREENHOUSES.

Any potting left undone last month should be attended to at once. Plants that were shifted last month will now be beginning to root into the fresh soil and to make young growth; rather more air should, therefore, be given on fine days, but in cold, windy, or frosty weather be cautious in giving it. Attend carefully to the watering, and syringe occasionally on fine days; shading will also be necessary for a few hours in very bright, hot weather. Stop, thin, and tie-out the shoots as they require it. Plants in flower (of which there will now be a number), and which have not been recently shifted, will require to be well attended in watering.

STOVE.

Most of these plants will now be growing freely. To do them justice, they should have a regular bottom heat of about 80°, a moist, growing atmosphere, and

a temperature of about 70° at night, and 85° to 90° in the day. Give air freely in fine weather, but guard against cold draughts. Syringe occasionally, and water freely when necessary. Shade a little in bright weather, and give the plants plenty of room, so that they may get the sun and air all around them. Shift into larger pots the stronger-growing kinds as soon as they require it. Stop, train, and tie-out the shoots as they grow. Keep down insects.

FLOWER GARDEN.

Prepare now the beds for the reception of the plants next month, by frequently turning over, and by mixing with the soil a portion of leaf mould or decomposed cowdung. Roll grass frequently, and mow once a-week or ten days. This will give it a close, firm bottom for the season. If there be still any turf to be laid, the sooner it is done the better. Plant Box, and push forward alterations. Plant herbaceous plants and dress borders. Sow hardy annuals, biennials, and perennials. Attend well to the stock of "bedding stuff," and harden-off gradually spring-struck cuttings. *Pleasure Grounds.*—All planting and alterations should be completed as early as possible. Attend well to the rolling and mowing of the grass. Turn and roll gravel walks.

FORCING.

FRUIT.—*Pine Apples.*—Withhold water from plants that are ripening-off fruit; let them have a drier atmosphere, and a temperature of from 85° to 90° during the day. Most of the summer fruit will now have "shown." See they have a regular bottom heat of about 85°. When they are out of bloom, maintain a moist atmosphere, and let them have a temperature of 10° at night, and 85° to 90° during the day. Give air freely on fine days, but close up early in the afternoon. Give them liberal supplies of water. Plants to fruit next winter must be kept growing a little longer. The young stock must be kept growing; give them a moist atmosphere, and a bottom heat of about 85°. They must have liberal

supplies of water when they begin to root and grow freely. Shift into larger pots before the roots get matted. Ventilate freely. *Vines*.—When the Grapes begin to colour keep the atmosphere dry; give abundance of air, and a moderate amount of fire heat. Grapes that are swelling must have a moist atmosphere, and a night temperature of 65°. Attend to the thinning of the berries in the succession-houses soon after they are formed, and thin, stop, and tie-in shoots in late-houses. *Peaches and Nectarines*.—Water effectually inside borders when they require it. Tie-in shoots as they advance in growth. Keep a moist atmosphere by syringing daily, and sprinkling the paths, &c. Do not exceed a night temperature of 60° until the stoning is completed; you may then gradually raise it to 65°. Give air early in the mornings, and shut up early in the afternoons. For directions for late-houses see previous Calendars. *Figs*.—Persevere in syringing daily. Attend well to the watering, and keep a moist atmosphere until the fruit begins to ripen. Gradually raise the temperature as the season advances. *Cherries*.—When the fruit begins to colour the atmosphere should be kept drier. Raise the temperature to about 60° at night, and 80° to 85° in the day; give abundance of air, and water when necessary until they begin to ripen. *Straubberries*.—See directions in last month.

VEGETABLES.—*Kidney Beans*.—Sow for succession. These will now do well with the increase of light and heat, by keeping them near the glass, and by keeping them well stopped, and well watered, and clear of insects. *Mustard and Cress*.—Sow for succession. *Potatoes*.—As the early crop approaches maturity, withhold water altogether. Successional crops in active growth should have plenty of water and air, with a steady bottom heat. *Capsicums and Tomatoes*.—Shift into larger pots. *Celery*.—Prick off. *Gourds*.—Sow and pot-off as soon as they are up. *Cucumbers and Melons*.—Attend well to the stopping, thinning, and regulating of the shoots. Be careful not to give too much air in cold weather. Keep up the bottom heat and the temperature as recommended last month. Water with tepid water. When the plants are strong enough to bear, fertilise the female blossoms. Sow for succession crops. Sow some Prickly for planting on ridges.

HARDY FRUIT.

Should we be favoured with a continuance of fine weather, protection will not be much required; but, as in our changeable climate at this season of the year we never know what the next forty-eight hours may bring forth, it is the wisest course to be always prepared for sudden changes of weather. Give a look-out every night before going to bed, and if there are any signs of frost, up with the coverings. Don't mind a little trouble now, when there is so good a prospect of a grand crop of fruit.

KITCHEN GARDEN.

Proceed with the cropping when the soil is in a favourable condition. *Potatoes*.—Finish planting as soon as possible. *Cauliflowers and Lettuces*.—Plants that have been raised in heat, after being gradually hardened-off, should be planted out in favourable situations. Sow in open ground for succession. *Peas*.—Sow twice during the month good breadths of Marrows on well-prepared ground. Give the tall sorts plenty of room between the rows. *Beans*.—Sow for succession the Broad Windsor. *Broccoli*.—Sow for the main crop early in the month. *Salsify and Scorzonera*.—Sow in rows a foot apart the main crop. *Beet*.—Sow the principal crop on good ground. *Kidney Beans*.—Sow towards the end of the month in a warm sheltered situation. *Carrots*.—Sow the main crop as early as you can. *Turnips*.—Sow for succession. *Spinach*.—Sow for succession. *Parsley*.—Sow in drills. *Radishes*.—Sow in beds for succession. *Herbs of sorts*.—Sow. In showery weather look well to young plants, or slugs will make sad havoc among them. Strew lime or soot. Destroy weeds as soon as they appear, and keep the soil well stirred among crops.—M.S.

FLORISTS' FLOWERS.

The Cineraria.—If last month's instructions have

been carried out, the plants will now have attained the shape required for exhibition; but as the lateral shoots will still be growing, they should be tied out as wide as possible that they may thoroughly develop themselves. Weak liquid manure is now indispensable to give strength to the wood and brilliancy to the flowers. Give all the air possible, and shade for an hour or two in very bright weather. Keep an eye on seedlings, and select the brightest and most distinct for next season. *Pelargoniums* will now be making considerable progress, and should have careful attention. Let air be freely given when the weather is sufficiently mild; but close the house sufficiently early, so that fire heat may be as much as possible dispensed with. Be careful that the plants are properly watered; and with a view to this, should the weather be dry, examine them twice a-day. Shading at mid-day will be frequently necessary. Now is the time for tying-out the late-flowering plants carefully, especially avoiding crowding, and arranging each shoot in its proper place. If your soil for autumn potting is not already prepared, let it be so at once, by laying up some good turfy loam, with a moderate quantity of deer, or sheep manure, the which, if kept sheltered from rain, and thoroughly turned over during the summer months, will make an excellent compost.—C. TURNER, *Slough*.

ROSES IN POTS.—As the bulk of forced roses are now in flower, or coming into flower, a light shading should be prepared; and for this purpose nothing is more suitable than No. 1 "tiffany" fastened under the glass inside the house; if head room, let it hang in shallow bags or folds. The sun, hitherto our kindest and best friend, must now be guarded against, lest the expanding flowers pass away too rapidly beneath his influence. The effect of constant sunshine or sudden bursts of sunshine must be neutralised not only by shading, but by regulating the temperature by the admission of air. Syringe all daily the sides and floor of the house, as well as the plants, in sunny weather. Water copiously while the flowers are expanding, gradually decreasing the supply when they arrive at maturity. Look over the plants that bloomed in February and are now pushing shoots for a second bloom, and remove with the finger and thumb buds that are inaptly placed or crowded. The same process may be gone through with plants pushing their first growth for the May bloom. Continue to tie out as the shoots advance in growth. Fumigate whenever an aphid is seen; apply sulphur in case of mildew. It is not unlikely that the Rose maggot may be unusually plentiful this year, owing to the dry, warm summer of 1861. Look closely and frequently over the bursting shoots, and wherever minute grains of a black mould-like substance, a white web, or leaves sticking together, are seen, carefully squeeze the leaves or ends of the shoots between the thumb and finger, avoiding the heart of the shoot, and the tender insect may be crushed without hurting the plant. Forced Roses should now be in full beauty and continue so throughout the month. The Roses of January and February may be sweet, fresh, and beautiful as flowers; but the sun of March and April is needed to impart to them that last touch of beauty, in default of which the connoisseur can hardly look at them as *Roses*. The recent cold, cloudy weather has kept the opening flowers longer in the half-expanded state than is usual; and, as a consequence of this gradual expansion, the flowers are of increased size and beauty. The more backward buds, however, will not improve in colour by the absence of sunlight. Of some hundreds of varieties now before me in bloom, the best cream and white are Devonians, Niphets, Madame Willermoz, and Mrs. Bosanquet; the best yellow, America, Enfant de Lyon, Viscountess de Cazes, Madame Falcot, and Celine Forestier; the best rose-coloured, Modèle de Perfection, L'Avenir, President, Parmentier, Marquise de Moira; the best crimson, Beauty of Waltham, Prince Léon, Madame Melaine, François Premier, Sénateur Yaisse, and Duc de Cazes, the best purple, Princesse Mathilde, George Peabody, Prairie de Terre Noir, and Dr. Leprestre. These are twenty-four first-rate forcing Roses, well varied in colour. Of the newer kinds I shall have something to say next month.—WILLIAM PAUL, *Waltham Cross, N.*



Pompon Dahlias.
 1 Star. — 2 Little Dorrit.

See Dahlias, Plate 1.

POMPON DAHLIAS.

WITH AN ILLUSTRATION.

WITHIN the last year or two there has appeared in our gardens a race of Dahlias which have been variously designated Bouquet Dahlias, Liliputians, and Pompons. They are quite distinct both in character and in adaptation from the show varieties as well as the bedding varieties seen at the present day. They approach, indeed, most nearly to the best show varieties in respect to symmetry of form, but they differ obviously in their more slender habit, and the smaller size of the flower-heads, which average only 2, and scarcely ever exceed $2\frac{1}{2}$ inches across. Liliputians they are not, properly speaking, for, though some are dwarfs in stature, others are giants; and as for bouquets, though they may be very well used in this cut form in vases and larger flower-stands, yet Dahlias are but unsavoury subjects after all, not quite falling in with one's notions of what is desirable for an in-door flower. So we come to prefer the name of Pompons for the group which is very fairly represented by the two figures in our plate. One of the varieties we have selected for illustration (*fig. 1*), with bright orange yellow flowers tipped with vermilion red, is called STAR; and the other (*fig. 2*), with the flowers of a deep purplish-rose, is called LITTLE DORRIT. Both of them fall amongst the free-blooming and moderate-growing section of Pompons, reaching the height of some $3\frac{1}{2}$ to 4 feet, and having the capitules or flower-heads, commonly called "flowers" or "blooms," a trifle over 2 inches in diameter.

This Pompon group of Dahlias is, we imagine, to be valued chiefly as furnishing a series of useful and elegant garden flowers—useful, that is, in a decorative point of view, and not interfering in the least with any of the objects for which other classes of Dahlias are grown, and elegant in every sense of the word in respect to habit and inflorescence. The principal fault to be found is, that too many of the varieties are tall growers, reaching to 5 or 6 feet in height; but a considerable number of them average about 4 feet, and a few are dwarfer still. They have already symmetry of form, and varied and brilliant colours. To these qualities more perfect dwarfness has to be added, and there can be no doubt it will one day be secured. Let but such flowers as we now possess, produced in the same profusion and of the same rich and varied hues, be borne on plants of from 2 to $2\frac{1}{2}$ feet in height, and we shall have in the Pompon Dahlia a charming plant for the decoration of the flower garden through the autumnal months, and for pot culture as exhibition plants.

The most desirable of the varieties we as yet possess are undoubtedly those which form a fine spreading head of long-stalked "blooms," and some of the dwarfer of them are beautiful pictures when in perfection. Those which are of stiffer habit, with short-stalked flowers, should be rejected. The group already embraces considerable variety besides that of colour, for in some of the sorts the florets are regularly cupped and "shell-like," as in those of the best show flowers, while in others the florets are openly quilled and arranged in close concentric circles, and in others again they are involutely pointed. The taller plants are suitable for shrubberies, or for placing as single plants in the centre of flower-beds, while from their freely-branching growth they are capable of furnishing an abundant supply of cut flowers or even of cut branches for large groups of flowers in entrance-halls and other places where large bouquets are admissible. As pot plants, to give variety to our autumn exhibitions, we imagine the dwarf sorts we already possess will be extremely useful.

We are indebted to the Messrs. E. G. Henderson & Son, of St. John's Wood, for the varieties represented in our plate, and to both these gentlemen and

to Mr. W. Paul, of Waltham Cross, for the opportunity of making the selection of what appear to us to be the better sorts, as follows :—

TALLER GROWING VARIETIES 5 TO 6 FEET HIGH.

- Little Darling.* Free bloomer ; symmetrically-quilled florets, bright rosy crimson ; $2\frac{1}{2}$ inches across ; full.
- Little Jewess.* Free and very gay ; symmetrically cupped ; bright pinkish-rose.
- Little Kate.* Small, quilled, almost globular, purple.
- Tom Thumb.* One of the smallest, and very free ; shell-petalled ; pale buff white, heavily tipped with bright rosy purple ; about 2 inches across.
- Little Robin.* Very small ; symmetrically quilled, full ; deep puce purple ; about 2 inches across.
- Little Mary.* Free bloomer and very rich colour, a crimson maroon ; shell-petalled and very even ; $2\frac{1}{2}$ inches across.
- Little Rosa.* Free bloomer ; symmetrically quilled and globular ; rather large, but very full and high-centred ; blush, slightly tipped at the back with purple ; $2\frac{1}{2}$ inches across.
- Little Gem.* Free bloomer ; symmetrically quilled and globular ; fawn or pale buff ; 2 inches across.
- Hebe.* Free ; shell-petalled, of good outline ; rosy purple.
- Bijou.* Free-blooming and showy ; blush, heavily tipped with maroon crimson.

DWARFER VARIETIES, $3\frac{1}{2}$ TO 4 FEET HIGH.

- Star.* Free bloomer ; shell-petalled, full ; bright orange yellow, tipped with vermilion red ; $2\frac{1}{4}$ inches across.
- Little Dorrit.* Tolerably free ; symmetrically quilled and full of florets ; the eye a little sunk ; deep purplish-rose ; $2\frac{1}{4}$ inches across.
- Crimson Beauty.* Free ; symmetrically quilled, fine form ; deep maroon crimson ; 2 inches across.
- Child of Faith.* Blush white, full and compact ; 2 inches across.
- Gold Pheasant.* Shell-petalled and very compact ; pale yellow, tipped with cherry rose ; about 2 inches across.
- Fairy Nymph.* Free bloomer ; shell-petalled and full ; pale rosy lilac ; $2\frac{1}{4}$ inches across.
- Annie.* An elegant, free-blooming sort of good form, the smallest of all ; blush white, tipped with rosy purple ; scarcely 2 inches across ; 3 feet high.
- Little Hélène.* Profuse bloomer, compact, and of good form ; symmetrically shell-petalled ; blush white, tipped with light purple ; 2 inches across ; 3 feet high.
- Tom Tit.* Very free ; symmetrically quilled and deep ; white, heavily tipped with deep purplish-lilac ; scarcely 2 inches across.
- Canary Bird.* Free, symmetrically quilled ; sulphur yellow.

There are many more varieties already in collections, and the number may be expected to increase rapidly now that attention has been directed to their merits. The foregoing varieties, however, may be safely taken as a guide by those who are about to make a selection ; and as a smaller set we should for ourselves prefer of the latter sorts Little Darling, Little Jewess, Little Mary, Little Robin, and Tom Thumb ; and of the dwarfer ones Crimson Beauty, Star, Little Dorrit, Annie, and Child of Faith.

We perceive the Pompon Dahlias are to be grown for trial at Chiswick during the present summer.

ON BOTTOM HEAT, OR HEAT AT THE ROOT.

So much has been said and written about growing tropical fruits, that it would appear there is scarcely any room to say or write more ; yet I believe a great many people are far from thoroughly understanding the true principles of forcing. Some imagine that to make a border and cram a great quantity of dung into it, is all that is required. Others, again, fancy if they keep the house at a certain temperature, they are sure of success, being at the same time quite regardless of fresh air for the plants or of heat for the roots. Now, I maintain that in our cold and almost sunless climate all tropical fruits require

bottom heat, and the hotter the climate of which the plants are natives, the greater the bottom heat they require. Again, we have all read and heard what has been said about Polmaise, both for and against; and I have always held that it is the true and best principle, but that it has never been properly carried out. I have always had a wish to do so, but only lately had the opportunity. Now I intend working it out on a somewhat extensive scale, having taken upwards of eighty acres of land at Ascot, where the situation, soil, and other requisites are all that could be desired. Further, I shall be most happy to show my plans and what I am there doing to any one interested in the growth of these fruits, or I shall be glad to learn from others any improvements on my plans, for, whatever perfection we may fancy we have arrived at, there is generally room left for some improvement.

I am for Polmaise heating, both for the roots and the branches. I intend growing Peaches, Nectarines, Grapes, and Pine Apples; and, as I take much interest in hybridising and proving the seedlings, I have arranged the houses on the following system:—At Ascot we have plenty of peat for fuel; I have, therefore, made a large boiler in which we can burn it. The boiler is put together in the following manner—six-foot lengths of two-inch pipes are put into siphon bends and made in the shape of a box, 7 feet long 3 feet 10 inches wide and 3 feet high, with two rows of pipes on the top. The whole is arched over and the fire is made in the middle of the box, which has a large furnace-door at one end, the smoke going out at the other. A large boiler is preferable in many ways to a number of small ones, as it saves both labour and fuel. This boiler will heat seven span-roofed houses, each house 65 feet long and 18 feet wide inside measurement, arranged as follows:—There is a centre house with three others on each side at right angles to it, the whole built on arches. The centre house contains the flows and returns of the other six, with stop-valves to let in or shut off from all or any of them at pleasure: therefore, when any of these six houses are heated, the centre one must be likewise; therefore it will be used for growing Pine Apples. In the others there will be two for late and two for early Vines, and two for Peaches and Nectarines, which will be grown as pyramids, but planted out in the inside borders of the house. The six houses will have two nine-foot arches running the whole length of them, and every arch has a passage under it, so that a man can walk up under the arches, which are built in brick and filled up with concrete to their crowns to form the floors for the Vine-borders, leaving the centre 3 inches lower than the sides, where a three-inch drain is placed. There are also six shafts, formed of six-inch earthen socket-pipes, carried up through the crowns of the arches in each house, three taken up about a foot higher than the level of the soil of the border in the house, and three nearly level with the soil. Now, as there will be two doors at the end of each house to enter the passages under the arches, and as these doors will have small ventilators in each, and as the vaults will be heated with hot-water pipes in bad weather when no air can be admitted above in the house, it is intended to let in a little fresh air, which will be thus warmed and passed up into the house; and as three of the shafts are higher than the other three, all the warm air will pass up these and the cold air down the lower three. Thus a constant stream of pure warm air will be passing round the house: this I call Polmaise improved. Again, as it is desirable to get a root-action first, especially for the Vines (as I maintain that the reason, in many instances, of bad setting of Grapes is that the branches are forced before there is a root-action, and consequently not sufficient vigour to set the fruit—this is especially the case with the Muscat and Frontignan kinds), and as the arches and concrete are thick and would take a considerable time to let the heat pass up through them, I propose, after the flooring is

complete and enough brick-rubbish laid over the floor to cover the draining-tiles, to lay some earthen drain-pipes parallel and close to the inside walls with other tiles laid across and communicating with the mains at only 2 feet apart, having four six-inch socket-pipes going up through the arches into the mains on each side, so that when heat is wanted at the roots it can be passed up the shafts, and when not wanted they can be closed, as can those for giving heat and air for the houses. After this is done, the next thing is to cover the whole with 8 inches of brick rubbish, burnt clay, or gravel. The borders I shall make with plenty of old mortar, sand, and bone-dust mixed with the loam, so that water can pass readily through and form a thorough drainage. I hold that Vines, when growing, want a good quantity of water and liquid manure; but, as soon as their fruit is ripe, the borders should be gradually dried off and left to rest, to ripen their roots as well as their branches in a wholesome soil, instead of the roots pushing as long as they can and then left to perish in sour wet garbage, as is too frequently the case, drought being their natural season of rest. This will be found to imitate their native climate, in which there is wet for six months and very little rain for the other six, so we can have as well one month in the year as in any other. It is only to start the Vines at the proper time and dry them off when the crop is cut. If this plan is carried out I am convinced there will be nothing more heard about bad setting, shanking, bad colour, or mildew. All these things are brought about by bad ventilation; cold, undrained borders, &c., &c. The growing of Peaches and Nectarines, both forcing and in the open air, is only in its infancy; yet I believe that in twenty years' time there will be but few people foolish enough to plant out in cold, undrained borders either Peaches, Nectarines, Apricots, or Pears. What with the late frosts in spring and the early ones in autumn, it is a most precarious chance that of a crop of any of these fruits. True, sometimes fine crops are obtained, but in many parts of Great Britain this is the exception.

To build a wall 14 feet above ground with copings costs about £3 per yard lineal, so that a kitchen garden 100 yards square, to build a wall round it, would cost £1200, and this at 6 per cent. interest will be £72; then, with coverings, nails, shreds, and labour to keep all in order will run away with over £100 per annum. Now, on the average of years, where are the walls that will repay this outlay? In many gardens it is from five years with Peaches to ten years with Pears before the trees are in a bearing state at all, and I have known some sorts of Pears planted in cold soils twenty or thirty years and never have borne a fruit. I therefore propose, after the walls are built, to concrete about 3 or 4 inches thick with a mixture of lime and gravel, sloping the border to the outer edge, then laying two main drains, one close to the wall and the other parallel to it, on the edge of the border, with cross-drains from back to front 2 feet apart, and with socket-pipes as shafts down into the main drains, both back and front, at about 6 feet apart. Thus it will be seen that a thorough ventilation will take place under the border. The drains should be covered with 6 to 8 inches of brick rubbish, stones, or gravel, to form, as in the houses, a thorough drainage. In the cold nights and winter I would stop-up these shafts; but when spring had fairly set in and the trees in bloom, I should every morning, when the temperature of the air was above that of the soil, open the shafts and shut them up at night when it was cold. If this were watched all through the spring and summer, the temperature of the earth might be raised many degrees, and we must bear in mind that in our climate we never get the earth too hot for these fruits. I should plant all my trees on Du Breuil's system, about 20 to 24 inches apart, and trained to an angle of 50°. By this method the walls would be covered

in four years, and all these trees would be in a full bearing state. As glass is now so cheap, I would cover all the walls with it; and thus guarantee on an average of twenty years as much fruit off 50 yards of wall as is now obtained in the ordinary way from 500 yards, and the crops would be certain every year.

Royal Nurseries, Bagshot and Ascot.

JOHN STANDISH.

“ALL ABOUT GRAPES.”

UNDER the above heading, in last month's FLORIST AND POMOLOGIST, my friend Mr. Tillery has described the very complete arrangements he has made in the new gardens at Welbeck, for having Grapes ripe at all seasons; and having had the pleasure of seeing the splendid houses he describes, I consider that nothing can be more complete than they are. Thus far we agree; but I differ from him still as to its being more difficult to get Vines to rest in June and July, as compared with August and September. He seems to overlook the fact, that though the atmosphere may be hotter in the two former months, the roots are in the earth, and it during the two latter is much hotter than during the former months. I am quite aware that Mr. Tillery recommended Vines in pots or tubs for supplying Grapes in March. Against this I have nothing to say, but I submit that Grapes cannot be cut from Vines in pots on the first day of the year, these young Vines having been struck the previous season; and that they can be from permanent Vines with much less injury to their constitution than if Grapes were ripened on them in March.

Mr. Tillery quotes the practice and experience of the late Mr. Forbes, of Woburn Abbey, a name well entitled to the respect of every gardener; but I fear his experience is dead against Mr. Forbes' theory. Many of your readers may recollect, that in January, 1855, Mr. Forbes exhibited at the Pomological or Horticultural Society a dish of new Grapes, a feat which excited much interest; and as I had the pleasure of being acquainted with Mr. Forbes, I wrote asking him how he managed to have Grapes so early. With that candour which was one of his characteristics he replied:—"The Vines began to break of their own accord in August, and I shut up the house, and in this way we had the Grapes so early." This was the first time he ever produced them so early.

On the 4th of May of the same year Mr. Forbes, having heard that I was leaving his neighbourhood, wrote a letter, now before me, asking me to pay him a visit before leaving, and from this letter I give the following extract:—"I begun last October to try and get a vinery to follow my early one, but could not possibly get them to break until after Christmas: consequently, I will have none fit to cut this month, which I much regret."

With regard to Mr. Dowding's experience at Oakhill, I cannot speak from personal knowledge, as he had just left his situation when I went to that neighbourhood; but I was for seventeen years subsequently in the constant habit of visiting the place while it was managed by Mr. Dowding's immediate successor, Mr. Davis, who, certainly, was well entitled to stand in the first rank as a Grape-grower and general forcing-gardener. He never ripened Grapes in January—not because he was unable to do so, but because it suited his arrangements better to have them ripe early in March. Nor do I believe his predecessor ever had them ripe in January. If my memory does not deceive me, Mr. Davis forced the same house of Vines for many years consecutively, so as to have the Grapes ripe in March, and noble crops they produced, without exhausting the Vines seriously; showing that, even forced as they were in what I consider the most difficult months of the year, with

skilful management all difficulties can be overcome. What I contend for is, that these same Vines would have produced ripe Grapes in January with greater ease to themselves and all concerned than in March.

In another paragraph of his article Mr. Tillery says, "No Grapes ripened in January and February, that I have tasted yet, could be compared in flavour to well-kept Muscats, West's St. Peter's, Black Tripoli, and Lady Downe's Seedling." Now, if Mr. Tillery has no objection, and we are spared till the time, I will send newly-ripened Black Hamburgs to any of the January or February Meetings of the Fruit Committee of the Royal Horticultural Society, and he can send his best Black Grapes, for Hamburgs and Muscats could not well be compared in point of flavour, and let the Committee decide which are the best Grapes in point of flavour.

Dalkeith Park.

WILLIAM THOMSON.

HARDINESS OF CALIFORNIAN AND JAPANESE TREES.

ADVERTING to an article in the December Number of the *FLORIST* "T. S." says, "Be cautious in cutting down trees which were apparently killed by last winter's frost." Sound advice, which, given twelve months earlier, might have been the means of saving hundreds of valuable things long since consigned to the fire. It is now about a year since long lists of killed and wounded appeared in the columns of different gardening periodicals. If any of the writers of those lists took the course followed by "T. S.," and allowed their shrubs and conifers to stand, it might be interesting to hear how many of their trees, at one time given up for lost, are now living to repay them for their patience. Had I written last spring, I should have given a long list of shrubs and conifers as dead that are now in the finest health. By this it must not be inferred that our losses have been light, extending as this collection does over upwards of 50 acres of uneven ground, from 300 to 600 feet above the level of the sea. The injury done to particular varieties has been partial. *Pinus insignis*, *Cupressus macrocarpa*, Chinese Juniper, *Arbutus*, and *Holly* of sorts were planted in great quantities, and formed the main features of the place. Below a line of 420 feet every *Pinus insignis*, upwards of a hundred, and varying from 6 to 30 feet in height, was killed. Above that line of elevation, with one or two exceptions, all are safe. A clump of twenty trees, averaging 20 feet in height, on a west slope three-quarters of a mile from the castle, backed by Oak and Larch, the warm tints of the latter in the spring and autumn contrasting with the dense foliage of the *insignis*, now form a picture that, if seen, would tempt many a disheartened lover of this beautiful Fir to find a high and dry situation whereon to plant it. *Cupressus macrocarpa* was planted almost entirely below the fatal line. Of this fine Cypress upwards of 120, from 10 to 25 feet in height, were killed. Several large specimens up to midsummer showed no signs of life—every leaf was as dry and brown as if it had been scorched; when to our agreeable surprise they began to show unmistakeable signs of returning vitality, and they are now, with the exception of a few inches at the top, quite green and healthy. Eight handsome trees, including our largest specimen, were uninjured. *Arbutus andrachne*, *A. unedo*, *Phillyrea*, *Alaternus*, Evergreen Oak, *Laurus nobilis* and *regalis*, *Cupressus Lindleyana*, *Magnolia grandiflora*, and three young plants of *Quercus glabra* commenced growing in July. The stem of an old plant of *Q. glabra* was split from the ground 9 inches upwards by the intensity of the frost. It did not lose a leaf; and, by keeping a bandage

of turfy loam round it, the young bark began to grow, and another season will complete the union. My noble employer has often suggested the working of this graceful shrub standard high, as a substitute for the more tender Orange and Lemon, for terrace decoration in summer, than which, mixed with New Zealand and Australian conifers, *Chamærops excelsa*, Aloes, and *Yucca gloriosa*, nothing could look more beautiful; and, plunged in ashes, any sheltered corner would suffice for its safe keeping through the winter months. I believe it has been generally proved that the Japanese shrubs and conifers passed the icy ordeal almost unscathed. Out of more than thirty varieties we have but one loss to record—*Ligustrum japonicum*, planted below the level of the lake, was killed. This fact, at a time when the Messrs. Veitch, with their usual perseverance, regardless of expense, are introducing so many gems from that country, which promise to surpass all that we have yet seen in the way of conifers, must be highly interesting to lovers of hardy trees; and I believe the day is not far distant when our *Sciadopitys*, and *Retinosporas*, will be as essential to the completeness of every collection, however small, as the *Wellingtonia* introduced by that enterprising firm is at the present time.

Eastnor Castle, Ledbury.

W. COLEMAN.

HINTS ON THE CULTIVATION OF THE GRAPE VINE.

No plant suffers more than the Vine from excess of moisture at the root: hence the necessity for perfect drainage.

It invariably happens where the Vine is found in a bad state of cultivation, that "the evil lies at the root:" therefore, I repeat again, the very great importance of perfect drainage, and also the necessity of selecting materials the most likely to keep up a healthy sustaining action of decomposition in the border.

The Formation and Composition of a Vine-border.—Select a southern aspect for the vinery, which may be of any convenient size—say (if a lean-to) from 30 to 50 feet long, and 19 to 23 feet wide, constructing it so that the Vines may be transplanted inside the house, also to have the opportunity of rooting in the outside border. This may be done by having the front wall of the vinery on arches, or plinths fixed on piers; the border should be nearly altogether above the level of the surrounding walks in the garden. Begin by making a border 6 feet wide, and adding this width every three years until the allotted space is filled up. Where neatness is strictly necessary, the whole of the inside border may be filled in at once, which may be sufficient for six or seven years; the condition of the Vine must be the cultivator's guide in this respect. Previous to putting the compost together for the Vine, concrete the bottom upon which the Vine-border is intended to be made, and which must be on an incline extending from the back wall of the vinery to the front of the outside border, which may be from 20 to 30 feet wide (the outside border). The concrete can be made with hot lime and gravel, or, if more convenient, broken brickbats or cinders: the latter must be quite free from acids. Lay on this concrete 6 inches thick, and when it is set quite hard it is ready for the compost. Some cultivators of the Grape Vine are under the impression where the substratum is formed of gravel, sand, or any other porous materials, that concreting is not necessary. I have always found that, let the substratum be what it may, it is best to have the roots near together, and kept under perfect control, and obliging the Vines to fill the pieces of border with roots before adding fresh to them. It will be found that a mass of healthy

roots will assist very materially in keeping open the border, and being so much under control can be fed with weak solutions of liquid manure to great advantage. I particularly recommend watering with clear liquid manure when it is found necessary, having myself committed a great error through watering with solutions too strong.

It often occurs that Vines do well for a few years, and ultimately the border becomes a close, sour mass, brought about principally through watering with thick, strong, liquid manure, and too often accompanied with bad drainage; also the mixing-in with the soil horse, cow, or pig manure, and often an excess of raw bones, carrion, and such like souring materials, which are quite sufficient to poison the roots of the hardest plants we have. It should be borne in mind that once a Vine-border is made and the Vines established, it cannot be turned over 2 or 3 feet deep to sweeten like a piece of ground required for vegetables: hence, as I have above stated, the importance of thoroughly draining, and putting together such materials as are most likely to keep up a healthy sustaining action of decomposition, and in which Nature's battery can perform its important work. Assuming the concrete to have set sufficiently, place upon this a foot of drainage, consisting of old brickbats and mortar rubble, putting the largest at the bottom, and finishing at the top with the smallest sizes. A few bones broken to the size of hens' eggs, and mixed with the drainage, will be found to be very beneficial after a few years to the Vine. The following composition is as nearly as possible what constitutes my own Vine-borders, which have so far done all that I could wish:—Three parts strong turfy loam 2 inches thick, if one hundred years old I would not grumble; one part good road-scrappings, get the latter off a flinty road if possible; one part old brickbats and mortar, if two hundred years old so much the better; one wheelbarrowful of boiled bones (ground to the size of half an inch) to fifteen of the compost; mix all well together, taking care not to chop the turf-sods too small, every square foot may be cut with the spade into six pieces. Now, previous to wheeling the border to its destination, place three layers of the turfy sods (just as they have been taken up), grass side downwards, this will be found to make a good filter; then wheel together the necessary quantity for the first piece of border.

Vine Cottage, Garston, near Liverpool.

JOSEPH MEREDITH.

(*To be continued.*)

NOUVELLE ROYALE CHERRY.

WITH AN ILLUSTRATION.

THE Nouvelle Royale belongs to the "Duke" race of Cherries, and may be regarded as an improved form of the Late Duke (*Anglaise tardive*), than which it is somewhat later, and continues in use after that excellent variety is over. Its distinguishing merit is its great size and beauty, and in possessing the melting flesh and sweet-acid flavour of the May Duke.

The fruit is large, very much larger than May Duke, round, and flattened at the stalk. The skin is of a brilliant light glossy red, somewhat mottled with large dark red dots. Stalk $1\frac{1}{4}$ to $1\frac{1}{2}$ inch long. Flesh tender, melting, and very juicy, with a fine sprightly and refreshing May Duke flavour.

A first-rate Cherry, ripening in the end of July and continuing in use till the middle and end of August.

Our figure was taken from a specimen furnished by Mr. Rivers.



Nouvelle Royale Cherry.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

BERBERIS DARWINII, var.—J. Anderson Henry, Esq., Edinburgh, March 4.—This is an alpine form of *B. Darwinii*, found by Dr. Jameson on the western side of Pichincha at an elevation of 12,000 feet. The general appearance was the same as that of the form usually cultivated, but the yellow flowers, which grew in short, nodding racemes, were smaller, less expanded, and less richly coloured. It seemed to be an inferior variety.

CAMELLIAS.—Mr. W. Paul, Waltham Cross: Special Certificate, March 4.—A collection of cut blooms of twenty-seven varieties, the principal of which were:—*Eximia*, *Imbricata*, *Elatior*, *Princesse Bacchiochi*, all imbricated-flowered crimson or reds; *Conspicua*, a very showy semi-double; *Donkelaari*, *Elegans*, *Triumphant*, *Double Striped*, all open-flowered crimson or reds; *Fimbriata*, *Double White*, whites; *Ochroleuca*, creamy white; *Lady Hume's Blush*, blush; *Feastii*, imbricated rose; *Aulica*, deep flesh colour; *Tricolor*, deep flesh colour with crimson stripes; *Eclipse*, *Colvillii striata*, *General Lafayette*, *Marguerite Guillon*, white with red stripes.

CATTLEYA AMETHYSTOGLOSSA.—R. Warner, Esq., Chelmsford: First-class Certificate, March 4.—A beautiful Orchid with tall, somewhat clavate stems, bearing a pair of leaves at the top. From between these leaves issues a short spike of charmingly-coloured moderate-sized, fleshy-looking flowers, of which the broad blunt sepals and petals are suffused with rose and decorated with numerous conspicuous spots of violet rose, and the lip is corrugated, papillose on the ridges, with the broad rounded middle lobe entirely deep violet rose, and the spreading tips of the lateral lobes of the same rich and effective colour.

CATTLEYA WARSEWICZII, var. *DELICATA*.—E. McMorland, Esq., Hampstead Road, February 18.—A very fine variety of *Cattleya*, imported from Brazil by Messrs. Backhouse, under the name of *C. Trianae*=*C. Warszewiczii*. It is one of the monophyllous forms, with the habit and character of *C. labiata*. The flowers are large, well formed; the sepals and petals white, the former lance-shaped, the latter very broad with a filled margin; the lip large, entirely suffused with a delicate lilac rose, and having a large orange-coloured blotch towards the point. *C. Warszewiczii* has the apex of the lip entirely of a rich deep violet rose, varying in intensity in different plants. It is, therefore, more showy than this variety, which has nevertheless a sweet delicacy of tint.

CIBOTIUM PRINCEPS.—Mr. Bull, Chelsea: First-class Certificate, February 18.—A very fine new Fern, introduced to our gardens by Mr. Linden. The fronds are large, tri-pinnate, rather more herbaceous-looking than other *Cibotiums*, glaucous on the under surface. The stipes and rachides are clothed with spreading golden brown hair-scales, which are very conspicuous.

CYPRIPEDIUM BARBATUM, var. *LATISEPALUM*.—Mr. B. S. Williams, Holloway: Commendation, March 4.—A fine variety of a handsome stove perennial. The leaves are more distinctly variegated with whitish blotches than in the ordinary forms. The flowers have a remarkably broad upper sepal, the upper half of which is white, while the lower portion is elegantly streaked with green, on a ground colour of purple, which runs out into veins. The flowers are bold and effective.

LILIUM FORTUNEI.—Mr. Standish, Bagshot, February 18.—A new Japanese species introduced by Mr. Fortune. The example now produced was weakly, having been but recently imported, and no correct opinion could be formed on its merits as a garden plant. As shown it had a slender, erect stem nearly a couple of feet high, furnished plentifully with longish linear-lanceolate leaves, and terminating in a large solitary flower, which was yellow, spotted over with deep brown red dots, and having the perianth segments reflexed. Probably, when better established, it will prove a desirable and ornamental species.

LYCASTE SKINNERI.—Messrs. Veitch & Son, Exeter and Chelsea: Special Certificate, February 18.—A collection of twelve distinct varieties, varying principally in the colours and markings of the lip. This proves to be one of the best of Orchids in its season for decorative purposes, and one of the most enduring in the atmosphere of a living-room.

ORROBANAX DACTYLIFOLIUM.—Mr. Bull, Chelsea: Commendation, February 18.—A fine, erect-growing Mexican shrub suited for conservatories. It has large, rather long-stalked palmately-divided leaves, the lobes of which are sometimes again lobed; they are, especially while young, clothed with rusty down, which is easily removable. It is an effective foliage plant.

PHALANOPSIS SCHILLERIANA.—R. Warner, Esq., Chelmsford; E. McMorland, Esq., Hampstead Road; Mr. W. Bull, Chelsea: First-class Certificate, February 18.—A beautiful Manila Orchid introduced last year, but only now bloomed for the first time in England. The plant has elongated, oblong, blunt leaves, prettily blotched with patches of greyish-white, almost as in some of the tropical species of *Lady's Slipper*. The flowers, which approach those of *P. amabilis* in form, measure about 3 inches across the expanse of the

petals; they are of a pleasing delicate rose tint, the basal lobes of the lip marked with yellow, spotted over with deep red, and the truncated apex of the lip extended at the corners into two curved horns. These beautiful flowers grow in panicked spikes, and are stated to be very numerous on well-established plants; on that exhibited by Mr. Warner on this occasion there were sixteen fully expanded. Several varieties showing differences in the leaves and flowers have been already observed.

PRIMULA SINENSIS NIVEA PLENA.—Mr. Bull, Chelsea, February 18.—These were seedlings from some semi-double plants shown last season, and then commended. The flowers were now of average size, with fringed margins, and having a small petaloid central tuft. The duplicated forms are thus evidently reproducible from seeds, and may be regarded as valuable for decorative purposes, being more easily reared than the choice double sorts, which, however, retain their intrinsic pre-eminence over these semi-double forms.

SALPIGOPHORA CHILËNSIS.—Messrs. Veitch & Son, Exeter and Chelsea: First-class Certificate, March 4.—A dwarf evergreen shrub introduced from Chili, and probably nearly hardy. The plant was of free branching habit, and seemed to show a disposition to flower freely, so that it was regarded as an acquisition. The leaves are impari-pinnate—that is, they have, besides the terminal one, from two to four pairs of oblong, obtuse leaflets, and these are attached to a slightly winged rachis. The flowers grow several together in short pendent racemes, and are of a deep cerise crimson, tubular, contracted at the base, an inch and a half long, very firm, with a somewhat spreading nearly equal limb of five rounded segments. It promises to be a very pretty greenhouse or half-hardy dwarf shrub.

A GROUP OF HYACINTHS.

Nor from the rigid professional point of view do I contemplate these. I cannot ascend to their altitude without feeling uncomfortably out of place there, where “qualified censors” discourse their “high philosophy,” at such an elevation; and I make haste to get down again into a more congenial atmosphere, where doubts may be entertained and dissent be avowed without your pretensions to judge being roughly handled. From the valley of doubt I look forth now on to the mountain side, where the great crowd can gaze, and learn to admire and applaud, without fear of interruption from the august conclave in convocation above. I attempt to write now of what strikes the eye, and elicits the rapture of the beholder who loves flowers, and for the love he bears them frequents the spot where periodical exhibitions of them are held. The profound ones may perhaps join issue with me in some matters. I write for those who often perceive much beauty in a flower a professional “censor” thinks unworthy of his attention. They shall speak to the “initiated;” I to those who admire beauty while they do not understand “points” of “quality,” and “properties” of “excellence,” that the former hold to be indispensable.

I begin with that class of Hyacinths denominated “Reds,” and I place them in two divisions of colour. Dark Reds shall be considered first, and I commence with *Lina*, a very fine bright crimson, that immediately strikes the eye; *Lord Macaulay*, a grand deep carmine; *Princesse Clotilde*, a bright red; *Howard*, rich fiery carmine; *Von Schiller*, dark lilac pink; *Circe*, one of the handsomest bright red Hyacinths I have seen; *Pelissier*, a striking brilliant-coloured red variety; *Solfaterre*, a magnificent fiery orange carmine, with light centre; *Mons. Faesch*, with deep carmine streaks; and *Lady Sale*, a light purplish-rose, with light centre. Of the lighter shades of Red and Pink I begin with *Milton*, blush, suffused and streaked with fiery carmine; *La Dame du Lac*, an exquisite variety, lilac blush, with carmine streaks; *Grandeur à Merveille* and *Seraphine*, miscalled Whites, two very pretty delicate blush kinds; *Princess Charlotte*, a superb blush and carmine, with green tips; *Cavaignac*, pale salmon striped with deep rose; *Sultan’s Favourite*, pale pink, with bright red stripes; *Gigantea*, a delicate blush; *Aurora*, a yellowish light pink; *Noble par Merite* (double), flesh colour with lilac and carmine stripes, a novel and showy flower; and *Duc de Malakoff*, having reddish-orange stripes on a nankeen ground. Of Black and Deep Blue varieties foremost stands *Prince Albert*, *General Havelock*, *La Nuit*, *Blackbird*, *Uncle Tom*, and *Humboldt*, all shades more or less dense of rich, glossy black purple, the two first possessing magnificent spikes of flowers. Then come *Argus*, bright blue, with light centre; *Laurens Coster*, a bright indigo; and *Louis Philippe*, a deep lilac, suffused with azure blue (two very fine double varieties); and *Baron von Tuyl*, an old variety, but yet in the van. Of shades of Light Blue and Lilac we get *Couronne de Celle*, *Grande Lilas*, *Charles Dickens*, another old favourite that is to be met with in every collection; *Van Speyk*, a fine double; *Grande Vidette*, with large pale lilac bells, somewhat loose, but, when well reflexed, forming a fine spike; *Orondates*; *Nimrod*; *Voltaire*, an exquisite lilac with azure blue tints; and *Blondin*, a pale lilac with fine close spike. Coming to White varieties I select first *Lord Wellington* (double) miscalled Red, for it is a delicate blush, and certainly one of the finest Hyacinths in cultivation. I had a fine specimen in a glass, and was much surprised and pleased that it

was so. Next comes Miss Burdett Coutts, a pure white with very large bells; Mont Blanc, one of the best, identical in every respect, save in size of bulb, with Queen Victoria; Paix de l'Europe, a new variety; Grande Vainqueur, Snowball, a very pure and fine variety; Orondates, said to be a sport from the blue flower of that name; Alba Maxima, Mirandoline, Straten Generale, and others that might be enumerated were it not that it would be chronicling distinctions of name only, without any perceptible difference scarcely in the flowers. The Mauve-coloured varieties have received a grand accession in Haydn, a very fine violet magenta that will become a favourite; and Honneur d'Overeen, a crimson lilac: these, with Paix d'Amiens, make up the best of this circumscribed class. Respecting Yellows, the list of these is extending yearly; but the additions do not seem to be meritorious acquisitions. There is a plethora of dirty yellows that look as if they had been imperfectly dyed. They can by no means lay claim to "fast" colours. A few good ones redeem in some degree the character of the tribe, such as Heroine (the single variety), a pale canary yellow; Ida, a brighter coloured variety of the same hue; and Victor Hugo, another pale yellow. These, with one or two others, comprise the "cream" of the whole.

I leave it to others to prescribe modes of cultivation. I have seen prescriptions that clash the one with the other in a most amusing manner. The doctors of floriculture differ, and perhaps as widely, as do the doctors of medicine. The horticultural pharmacopeia seems to have its allopathic and homœopathic disciples, in common with the pharmacutics of the medical profession. Experience will best prescribe the mode of culture; but successful growers and exhibitors do not all walk in the same beaten track.

I find it to hold good as an invariable rule that the Blue Hyacinths of all shades have the most vigorous foliage, in many cases reaching high up among the circlet of bells that compose the spike. This is to be regretted, but hardly to be avoided. It seems to be inherent in their constitution; even among the best-grown specimens of Messrs. Cutbush and Paul this was evident. In this respect the Whites stand next, with some few exceptions not so robust as the Blues, and thereby seen to better advantage. A large majority of the Reds have dwarf foliage, scarcely reaching to the base of the spike. They appear to be weaker, constitutionally, than the Whites and Blues; and I think as a rule most failures occur among varieties of this colour. It would seem that as we proceed higher in the direction of intenser colours, in the same ratio does the constitution of the variety become weaker. This may be but a theory that will not bear the test of scrutiny; but I have been struck with the apparent manifestation of it on several occasions.

Will some vendor of this flower, when preparing his catalogue next autumn, give us a more explicit division of the colours? To class Robert Steiger and Lord Wellington as Reds, Prince Albert and Grande Lilas as Blues, and Grandeur à Merveille and Snowball as Whites is absurd, and as contradictory as it is misleading. One difficulty must be confessed: Our dealers are dependant in a great measure on the Dutch growers for the descriptions they give; and in Holland, owing to peculiarities of soil and climate, the colours are intenser than when developed in England. Still, the general cultivation of the Hyacinth in this country gives the opportunity for a more definite classification of colours, and I commend the consideration of the matter to those who possess the facilities for accomplishing it.

Q. UO.

THE METROPOLITAN EXHIBITIONS.

THE ROYAL BOTANIC SOCIETY, *March 26*.—The first of the spring exhibitions, in connection with the Royal Botanic Society, Regent's Park, was held on this date; and, though small in extent, was yet very interesting, the prizes being confined exclusively to coniferous plants, Camellias, and Primulas, notwithstanding a large quantity of other plants were staged. Groups of coniferous plants came from Messrs. Standish, Laing, Cutbush and Son, and Jackson & Sons. The prizes were awarded in the same order. They comprised varieties of Thujopsis, Retinosporas, Pinuses, Thujas, Cedruses, &c. From the first-named came a very interesting group of new plants from China and Japan, and included Retinospora obtusa variegata, Aucuba japonica var., four varieties of variegated Euonymus, a golden-foliaged Thuja, &c. Mr. Standish was also first with six Camellias in pots—viz., Sarah Frost, Valteverado, Comte Cruvalli, and Comtesse Mastiani, reds; Duchesse de Berri and Montironi, whites. Second, Messrs. A. Henderson & Son. In the Amateurs' Class for six plants, Mr. Cross, gardener to Sir F. H. Goldsmid, Bart., had a walk over with fine plants of Storeyi, Donkelaari, Duc de Bretagne, Tricolor, Baron de Prony, and Variegata. Twelve stands of Camellias were produced in the class for twelve cut blooms, some remarkably fine flowers being distributed among them. Mr. Burn, gardener to Sir C. Isham, Bart., was first; Messrs. Veitch & Son, second; and Mr. William Paul, third. The most striking were Mathotiana, a brilliant crimson; Elatior, bright red; Lemichezii, Fra Arnolda de Brescia, and Imbricata, reds; and among the light kinds were Comtesse d'Orkney, Halfida de la Reine, Targioni, blush with carmine streaks; and Alba fimbriata. With twelve Chinese

Primulas, Mr. Todman, gardener to R. Hudson, Esq., was first with some remarkably fine plants; and Mr. Cutbush, of Highgate, second. By far the larger portion of the Exhibition was made up of miscellaneous plants. Foremost were two fine groups of Hyacinths from Messrs. Cutbush and W. Paul, including all the fine varieties exhibited at Kensington; and a large group of Tulips from the latter; also three boxes of beautiful cut Roses, while a like quantity came from Messrs. A. Paul & Son. Mr. W. Paul also had six plants of H.P. Beauty of Waltham, a deep rosy scarlet, fine flower, and vigorous habit. To this a First-class Certificate was awarded. A like commendation was given to two seedling Cinerarias from Messrs. F. & A. Smith—namely, Cadet, a rich deep crimson self; and Emily, narrow fiery carmine edging, with pure white ground and dark disc; and Certificates of Merit to Defiance, a purple crimson self; and Emperor, having a margin of deep red round a fiery scarlet ring, and a light disc. Some other pretty seedlings also came from the same raisers. Messrs. Veitch & Son received First-class Certificates for Camellia Reine des Beautés, a very delicate flesh-coloured variety; Rhododendron Sesterianum; Asplenium flabellulatum, a very elegant dwarf Fern; and A. rachirhizon, a larger kind, but equally handsome; and Phyllagathis rotundifolia, a dark metallic green ornamental-foliaged plant. Mr. B. S. Williams, of Holloway, received a like award for Cyperus alternifolius fol. var.; Cibotium princeps, a large handsome Fern; and Cypripedium barbatum var., very large and striking. Mr. Hutt, gardener to Miss B. Coutts, received the same award for a specimen of the variegated Cyperus. A very handsome variety of the double Primula was exhibited by Messrs. F. & A. Smith, raised from seed. The flowers were fimbriated, were larger than the double white, opening a pure white and changing with age to a deep flesh colour. Some pretty specimens of Cyclamen persicum were staged by Messrs. E. G. Henderson & Son; also two fine specimens of Imatophyllum miniatum. Some groups of ornamental and handsome-foliaged plants, and other collections of plants, made up the Exhibition.

ROYAL BOTANIC SOCIETY, April 2.—Cinerarias were the principal feature at this Exhibition, some very nice plants being staged. In the Amateurs' Class for six plants, Mr. Lamb, gardener to Miss Thackerwaite, of Southall, was first; and Mr. Wiggins, gardener, Worton Cottage, Isleworth, second. In the Nurseryman's Class the only collection was staged by Messrs. Dobson & Sons, who were awarded the first prize. Among selfs, Duke of Cambridge and Smith's Brilliant were very conspicuous, both being bright crimson flowers. The others embraced the well-known leading kinds. Several seedling flowers were shown, the best were Victoria, from Mr. Earley, gardener to F. Pryor, Esq., Welwyn, a well-formed clear white, with purple disc; and Carminata variegata, from Messrs. F. & A. Smith, of Dulwich, a dull carmine-shaded kind edged with creamy white. To these a Second-class Certificate was awarded. Mr. James, of Isleworth, also had Lord Elgin, a pleasing, soft, magenta rose. From Messrs. Dobson & Son came two selfs, shades of magenta rose, named Sunbeam and Sowerby. From Mr. Wiggins, Beautiful Star, Little Gem, and Decorator, crimson tipped flowers; and Defiance and Dark Beauty, two dark selfs. From Messrs. F. & A. Smith came Cadet, True Blue, a large and somewhat coarse violet purple self; Mrs. Boucicault, a rosy scarlet tipped flower; Gauntlet, a fiery scarlet self with light disc; and Rose of England, a large and coarse rose-edged variety. A group of very handsome Amaryllis came from Mr. R. Parker, of Tooting, to which a small silver medal was awarded; and two groups of double Alpine Primroses came from Messrs. Cutbush & Son, Highgate; and Messrs. Ivery & Son, Dorking. The first place, with six pots of Cyclamens, was gained by Mr. Cross, gardener to Sir F. H. Goldsmid, Bart.; the second prize by Mr. C. Hutt, gardener to Miss B. Coutts, Highgate. First-class Certificates were awarded to Messrs. Veitch & Son for Rhododendron Princess Alice, a hybrid between R. ciliatum and R. Edgworthii, having sweet-scented white flowers; and for some other rare plants. To Mr. R. Parker, of Tooting, for Rhododendron Countess of Haddington, producing large white flowers deeply stained with pink. Mr. Bull, of Chelsea, received two Certificates of the first class for a distinct kind of North Indian Fern and a handsome variety of American Aloe. A like award was made to Mr. Williams, of Holloway, for a handsome large-growing South American Fern adapted for conservatory decoration. Mr. W. Paul and Messrs. A. Paul & Son again exhibited some excellent cut Roses, and some cut Camellias were produced by the former. A group of Hyacinths was staged by Mr. Cutbush; a stand of cut Pansies by Mr. James; and Mr. Todman had some of his finely-grown Chinese Primroses.

ROYAL HORTICULTURAL SOCIETY, April 9.—This Exhibition was held in the Council-chamber and a portion of the arcade reaching round to the conservatory. Azaleas formed a most conspicuous feature, good plants and remarkably well flowered. In the Nurseryman's Class for twelve kinds, Mr. C. Turner, Slough, was first; Messrs. Ivery & Son, Dorking, second; and Messrs. Fraser, Lea Bridge Road, third. The most prominent were The Bride, Duchess of Nassau, Eulalie, Gem, Grand Monarque, Flower of the Day, Glory of Sunninghill, Bouquet de Flore, Rosy Circle, Aurora, and Constantia rosea. In the class for Amateurs, Mr.

Thomas Todman, gardener to R. Hudson, Esq., Clapham, was first; Mr. Blogg, gardener to S. Gassiot, Esq., Clapham, second; and Mr. Higgs, gardener to Mrs. Barchard, Putney, third. Differing from those in the previous class were *Optima*, *Iveryana*, *Dr. Livingstone*, *Coronata*, *Magnificent*, *Admiration*, *Broughtoni*, *Flora*, &c. In the Amateurs' Class for six vars., Mr. Todman was again first, and Mr. Tegg, gardener to Baron Hambro', second; and in the Open Class for the same number of plants (new varieties) Mr. Turner was first, and Messrs. Ivery & Son second. Mr. Turner had *Duchesse de Nassau*, with showy salmon flowers, tinged in the upper petals with violet; *Gem*, rosy salmon; *Virgin Queen*, white; *Model*, rosy pink; *Roi Leopold*, salmon, with crimson spots on the upper segment; and *Duc de Nassau*, a large and showy crimson. In the Amateurs' Class for three new kinds, Mr. Todman was first with *Distinction*, pale salmon edged with white; *Princesse Mathilde*, a pleasing purple; and *Dr. Livingstone*, a rosy pink of good quality. Messrs. Veitch & Son had a group of small standard *Azaleas* that were much admired. With a single specimen, Mr. Turner was first with a fine plant of *Rosy Circle*; Messrs. Ivery & Son second with *Gem*; and, third, Mr. Todman with *Princess Royal*. Some very handsome *Rhododendrons* came from Messrs. Veitch & Son and others. Among them were some hybrid kinds of great promise. Messrs. Dobson & Son, Isleworth, were first with nine plants of *Cinerarias*, well grown and flowered. They were *Captain Schreiber*, *Brilliant*, *Master Watson*, *Louisa Pyne*, *Perfection*, *Hyperion*, *Mrs. Hoyle*, *Lady Seymour*, and *Mr. Marnock*; second, Mr. C. Turner, with *Queen Victoria*, *Adam Bede*, *Mr. Hoyle*, *Eton Boy*, *Miss Franklin*, *Brilliant*, *Perfection*, *Reynolds Hole*, and *Regulator*. In the Amateurs' Class for six plants, Mr. F. Lamb, gardener to Miss Thackwaite, Norwood Green, Southall, was first with good plants of *Master Watson*, *Perfection*, *Prince of Wales*, *Mrs. Hoyle*, *Beauty*, and *Modesta*; second, Mr. Wiggins, Isleworth. Several collections of forced spring flowers were staged, comprising *Deutzias*, *Dielytras*, *Azaleas*, *Rhododendrons*, *Lilacs*, &c., and they made an excellent display. Groups of twelve greenhouse plants came from Messrs. Veitch & Son, Frasers, and J. & C. Lee, such as *Acacias*, *Boronias*, *Eriostemons*, *Ericas*, a plant or two of *Genetyllis tulipifera*, *Camellias*, *Pimoleas*, &c. The prizes were awarded in the order of the names given. Groups of twelve hardy herbaceous plants were produced by Mr. B. S. Williams, of Holloway, and Mr. Young, gardener to R. Barclay, Esq., Highgate. With nine pots of *Auriculas*, Mr. C. Turner was first with some splendidly-bloomed plants of the following:—*Page's Champion*, *Ann (Smith's)*, *Mrs. Smith*, *Fletcher's Mary Ann*, *Taylor's Glory*, *Netherwood's Othello*, *Dickson's Duke of Wellington*, *Spalding's Mary Gray*, and *Ensign (Turner)*; second, Messrs. Dobson & Son. With six plants, the Rev. H. H. Dombrain, of Deal, was first with *Maclean's Unique*, *Othello*, *No Plus Ultra*, *Page's Champion*, *Oliver's Lovely Ann*, and *Hud-on's Apollo*; second, Mr. James, gardener to W. F. Watson, Esq., Isleworth; third, Mr. Holland, gardener to R. W. Peake, Esq., Hounslow. Groups of new and rare plants came from Messrs. Bull, B. S. Williams, F. & A. Smith, and Veitch & Son. Mr. Cutbush had some of his fine *Hyacinths*; Messrs. A. Paul & Son *Roses* in pots, as well as boxes of cut blooms, Mr. W. Paul also exhibiting the latter, as well as specimens of his new *Rose*, *Beauty of Waltham*. Several seedling *Cinerarias* were staged. Among the best were *James Andrews*, a bright purplish self; *Vicar of Caunton*, broad edging of crimson, white ring, and dark disc; *Prairie Bird*, blue, with white ring and dark disc; *Mrs. Harvey*, medium edge of crimson, white ground, and dark disc; *Great Western*, a showy crimson self; *Artist*, crimson with light centre; *Queen of May*, another crimson-tipped variety; and *Eton Boy*, a crimson self, from Mr. Turner, of Slough. Mr. Wiggins had a large crimson self named *Dark Beauty*; and Mr. James, a fine crimson purple self of good quality, named *Lord Elgin*. Mr. Ivery sent *Distinction*, a purplish crimson-tipped flower with narrow ring of white round a dark disc.

REGENT'S PARK (ROYAL BOTANIC), *April 9*.—Collections of twelve *Hyacinths* were produced by Mr. Young, gardener to R. Barclay, Esq., in the Amateur's Class, and by Messrs. Cutbush and Turner in the Open Class. The varieties were identical with those shown before. Collections of *Begonias* came from Mr. Lakeman, gardener to J. Campbell, Esq., Hendon; Mr. Cross, gardener to Sir F. H. Goldsmid, Bart.; Mr. Young, and Mr. Cutbush, but contained nothing calling for remark. A group of nicely-bloomed but well-known *Epacris* came from Mr. Cross, and were awarded the first prize in that class. Mr. Williams, of Holloway, and Mr. Bull, of Chelsea, had groups of rare plants; and collections of *Tulips* were staged by Messrs. Cutbush and Dobson & Son, as well as some *Cinerarias* by the latter. Some *Auriculas*, *Pansies* in pots, and cut *Pansies*, came from Mr. James, of Isleworth; and some specimens of large-flowering *Mignonette*, grown like shrubs, from Messrs. E. G. Henderson & Son, Wellington Road Nursery; Messrs. F. & A. Smith sent some pretty seedling *Cinerarias*, and specimens of their double-flowered *Primula sinensis*; and Messrs. Carter & Co. plants of their singular-foliaged double-flowered *Fuchsia Meteor*. Certificates were awarded to R. Warner, Esq., Messrs. Standish, Parker, and Bull, for specimens of new and rare plants. *

ROYAL BOTANIC SOCIETY, REGENT'S PARK, April 16.—Another very pretty spring exhibition that must have delighted all who saw it. Groups of six Azaleas were shown in good condition. Mr. Cross was first in the Amateur's Class and Mr. Turner in the Open Class: the varieties similar to those shown at Kensington. The Rev. H. H. Dombtrain and Mr. Turner were first in the two classes for twelve Auriculas, some admirable plants being staged by them. Mr. Williams, of Holloway, and Mr. Lakeman, gardener to J. Campbell, Esq., Hendon, divided the honours with the variegated plants; Mr. Bull and Mr. Cross taking the second awards. First-class Certificates were awarded to Messrs. Low & Co. for three handsome varieties of Dendrobiums: *D. Lowii*, from Borneo, a yellow-flowered variety, very bright in colour, seemed to be the favourite. The same award to Mr. Bull for *Dracæna ferrea variegata*, a very handsome variety, superior to *D. terminalis*, which it somewhat resembles. To Mr. Williams for an *Alsophila* species—a handsome frilled Fern. To Messrs. F. & A. Smith for another fine double red Primula, and, like "*Delicata*," of first-class properties. To Mr. Turner, Slough, for a bright rosy pink H.P. Rose, Catherine Guillot, with remarkably fine flower, and for Cineraria the Artist, noticed in previous reports. Some seedling Cinerarias from Messrs. F. & A. Smith and Mr. Turner made a pretty display, supported by Hyacinths and Tulips; and a group of miscellaneous plants from Mr. Cutbush; cut Roses from Messrs. Paul & Son; named Cinerarias from Messrs. Dobson & Son and Mr. Wiggins; Begonias from Mr. Bull; Rhododendrons from Mr. Noble, which seemed to have been injured by travel or some other cause; Pansies from Mr. Bragg and Mr. James; and variegated herbaceous plants from Mr. Williams, of Holloway. Quo.

CULTURE OF FIG TREES IN POTS.

At page 60, "An Inquirer" wants to know about standard Figs in pots. As far as the training is concerned, they may be any shape the party likes, or that most suitable to house and circumstances; "but they must have one stem where they leave the soil." There is no fruit grown in pots so remunerative as Figs. Last season we had fifteen in 13-inch pots. The fruit began to come in on the 9th of April, and between that time and October we find the average number of fruit to be forty-five and a half to each plant. These plants are from fifteen to twenty years old, and have their outside roots chopped off in November with a hatchet, and put in the same pots when washed. We give a little bottom heat, and find for an early crop it is necessary to watch when the crown of the fruit opens a little, and give as much care as possible to regular temperature and careful watering. At other times they can scarcely have too much manure water at the roots, and fresh water overhead. The success in this method of growing Figs is simply from the pot counteracting its gross-feeding propensities, instead of, as most people assert, that to grow Figs they must have chalk. The fruit is becoming much more popular than formerly, and more sought after from its excellent preserving qualities as a whole fruit for winter dessert. J. F.

PERPETUAL CARNATIONS.—Cannot you persuade some of your London readers (for instance, the author of the valuable paper on in-door gardening in page 9) to try the perpetual blooming Carnations in pots as a balcony plant? In Italy, Rome especially, they are seen on every window-sill, where they appear to thrive without the least attention, producing blooms deliciously sweet all the year round, in the filthy atmosphere of Roman courts; and I was told that they lived for many years in the same pot without adding fresh soil. Some of them had the creeping habit of our mountain Pinks, and hung in long tresses of foliage from the upper storey windows, but always producing bloom. Surely, if they thrive in Rome under such treatment they would do well in London, and the fragrance and constant presence of their bloom would afford a pleasing contrast during the autumn and winter months. They have also in Rome an indigenous kind of Stock much used as a balcony plant, which appears always in bloom, and would be worth procuring.—VIATOR.

THE PROPAGATION OF THE GENUS *STATICE*.—All this genus can be quickly and easily propagated by making incisions lengthwise in the stems close under the foliage, and taking a thin paring of the wood from the under surface of the incision. Afterwards tie damp moss tightly round the parts operated on. If the moss be constantly kept damp, the plant will soon throw out an abundance of roots into the moss. As soon as this is found to be the case, cut off the stems a little below the roots and pot them. It will then be seen that they will make far better plants in less time, and also flower a great deal quicker, than plants raised from cuttings.—C. J. W. T.

A HINT.—*LEPTODACTYLON CALIFORNICUM* AND *AGATHÆA CÆLESTIS* FOL. VARIEGATIS.—I think no garden (particularly where the bedding system is carried out) should be without these two lovely plants. The former is, I presume, generally grown as a pot plant, and when so treated it is apt to lose the lower foliage and assume rather a shabby appearance. As a bedder, however, it is at once novel and beautiful, its delicate Heath-like foliage and lovely white-centred lilac-rose Phlox-like flowers producing an effect which cannot fail to charm. The latter is a plant of recent introduction, and will doubtless find its way into every collection of bedding plants, the beauty of its neat Box-like white variegated leaves and compact short-jointed habit rendering it valuable as an edging or ribbon plant for its foliage alone. It has, however, another recommendation of no ordinary character, for it produces beautiful sky-blue flowers which are thrown well above the foliage, and we all know the value of blue flowers.—GULIELMUS.

CULTIVATION OF MUSHROOMS.—At a recent sitting of the French Academy, M. Chevrall produced a magnificent bunch of esculent Mushrooms from the grounds of M. Labordette. His method of cultivation is thus described:—He first develops the Mushrooms by sowing spores on a pane of glass covered with wet sand. Then he selects the most vigorous individuals from among them, and sows (or plants) their mycelium in a cellar in a damp soil, consisting of gardener's mould, covered with a layer of sand or gravel 2 inches thick, and another layer about an inch deep with rubbish from demolitions. The bed thus prepared is watered with a diluted solution of two grammes (one gramme equal to 15·44 grains troy) of nitrate of potash per square metre (equal to 1·1960 sq. yard), and in about six days the Mushrooms grow to an enormous size.

CALENDAR OF OPERATIONS.

CONSERVATORY.

The beauty of plants in flower will soon pass away if exposed to the influence of bright sunshine; shading must, therefore, be properly attended to, and air should be given freely, especially in fine weather; and towards the middle of the month, if the weather be fine, a little may be left on at nights. Guard against a dry arid atmosphere by syringing daily plants not in flower, and sprinkling well with water the borders. All plants in pots will now require liberal supplies of water. Strong-growing kinds should have a little weak liquid manure occasionally. Attend regularly to the training of plants, tying-up of climbers, &c. Forced Roses, if well done, will now be beautiful objects; display some taste in arranging them to the best advantage. Pelargoniums will now take the place of Cinerarias. Keep down insects of all kinds.

GREENHOUSES.

This house will now be very interesting and gay, as many of the finer kinds of plants will now be in flower. Shading must be well attended to, otherwise their beauty will soon fade if exposed to bright sunshine. Give abundance of air and attend well to the watering. Plants that were shifted in March or the beginning of last month will now be rooting and growing freely, and should be properly attended to in stopping, thinning, and tying-out of shoots. Syringe them in hot dry weather once daily, and see they have plenty of water.

STOVE.

The plants in flower may now be moved either to the conservatory or some intermediate-house where they can be kept cooler; they will last longer in flower, and the growing plants can by this means have more space and receive the treatment they require. Shift any plants that may require more pot-room. Stop all long rambling shoots, and thin and tie out as they require it. Shade a little in very bright weather. Syringe daily. Water freely, especially all strong-growing kinds, to which a little weak liquid manure may be occasionally given. Venti-

late freely. Insects, if not kept down, will now be troublesome.

FLOWER GARDEN.

This is a busy month here. The arrangement of colours and similar matters decided on, if the weather be favourable about the middle of the month commence planting; put all the hardier things out first, leaving the more tender until towards the end of the month. Peg-down all shoots that are long enough, otherwise the plants may be much damaged by winds. If dry weather should set in after planting watering must be well attended to. Prick-out annuals in beds of good rich soil, so as to get them good plants before they are finally planted. *Pleasure Grounds.*—There is no better season than the present for transplanting Conifers, provided they are carefully removed; the most of them like a good loamy soil. They should be well watered when planted now; if of any size they should be neatly and securely staked to prevent them from being blown about by the winds. Attend regularly to the rolling and mowing of lawns, the sweeping and rolling of walks, so that everything may now have a neat and beautiful appearance.

FORCING.

FRUIT.—*Pine Apples.*—Look well to the bottom heat, if tan or leaves are used for this purpose; as under a daily increasing temperature it will sometimes get much higher than is essential to the well-doing of the plants. The summer fruit will now be swelling fast, give the plants plenty of water, and occasionally a dose of liquid manure. Give air freely in the early part of the day. Close early in the afternoons, and syringe overhead. Keep as moist an atmosphere as you can at present, you can hardly overdo it now for fruit that is swelling. Shift into their fruiting-pots plants intended for "starting" next autumn. Shift all growing plants into larger pots as soon as they require it. Keep a steady bottom heat of at least 85°, give air freely in fine weather, and maintain a moist growing atmosphere. *Vines.*—Keep up a moderate fire heat to Grapes that are ripening. By this means you can give them more air than you otherwise

could safely do, and you can leave a little on at night. Maintain a moist atmosphere in houses where the fruit is swelling. Water well all inside borders when they require it. Do not neglect to thin the berries as soon as they are fit. In late-houses the thinning, stopping, and tying-in of the shoots will require daily attention. Give abundance of air in the early part of the day if the weather be fine, and always close soon in the afternoon, at the same time well wetting the borders and paths of all the houses when Grapes are not in flower. *Peaches and Nectarines*.—Persevere in syringing the trees well mornings and afternoons until the fruit begins to approach maturity, and well wet the borders after closing the houses in the afternoon, otherwise it will be difficult to keep the trees clear of red spider, which will now be troublesome if anything like a dry hot atmosphere be kept. Give inside borders a good soaking of liquid manure occasionally. Give air abundantly in fine days. Towards the end of the month a little air may be left on at night when the fruit is beginning to ripen, and keep a little fire heat at the same time. This will improve the flavour of the fruit, and also mature the wood. In the later houses keep the shoots stopped and tied down, and be careful not to retain too many. Thin the fruit as it is needed, regulating the crop to the strength of the tree. A light crop on small or weak-growing trees, and a heavy crop on large, strong, robust-growing trees. You can hardly keep the atmosphere too moist at this season. *Figs*.—When the first crop of fruit approaches maturity, water should only be used sparingly; it cannot, however, be safely dispensed with for any length of time, particularly with trees in tubs or pots, or otherwise confined, as the second crop, which will now be showing, will suffer. Ventilate freely in fine weather, and keep the atmosphere as moist as you safely can without injuring the ripening fruit. *Cherries*.—As soon as any of the trees are cleared of their fruit they may be taken out of the house and placed in some situation where they can be properly attended to. Trees in fruit, if in small pots, will now require liberal supplies of water. Give them abundance of air and keep the foliage clear of insects. *Strawberries*.—These can hardly have too much air now until the crop is set, when they should be kept closer and warmer, and be daily syringed, and well watered, and if weak liquid manure so much the better. By this means and only leaving a few fruit, Queen and other large kinds can be grown to 2 ozs. in weight. *Cucumbers and Melons*.—Never let the bottom heat get much below 80°, neither should it get much above that. Give them liberal supplies of water, and keep the shoots well thinned, never let them get entangled. Plant out for late crops.

HARDY FRUIT.

The weather the greater part of the past month has been very unfavourable for fruit trees in blossom. Peaches, Nectarines, and Apricots have been very full of bloom, and when protected they will be a heavy crop; but we fear they will have suffered to some extent where unprotected. Plums, Cherries, Pears, and Apples will, owing to the dull cold weather we have lately had, be rather later in blossom than we at one time anticipated from the mildness of the past winter. If favoured with fine weather whilst in bloom we may anticipate a heavy crop. Give Peaches, Nectarines, and Apricots a good washing with a barrow engine three or four times a-week. Attend in time to disbudbing, and spare no pains to keep the trees clean and in good health. All protection may be removed towards the end of the month.

KITCHEN GARDEN.

We do not remember for many years a more unfavourable time for getting in seeds than the present spring has been. We have had a deal of rain during the month of March and little sun or drying winds; the ground has, in consequence, worked very badly. A little extra attention will, therefore, be now necessary when the young crops are above ground in thinning and in stirring the soil between the rows. Earth-up Potatoes as they require it. Plant out Cauliflowers, Cabbages, and Lettuces. The present is a good time to make plantations of

herbs if not already done. Plantations of Rhubarb, Sea-kale, Asparagus, Horseradish, and Artichokes may still be made. Towards the end of the month plant out Tomatoes against south wall. Early Celery transplanted last month should be planted out in well-prepared trenches. *Marrow Peas and Broad Beans* should be sown twice during the month. *Kidney Beans*.—Sow for succession. Prick-out Cauliflowers, Lettuces, Broccoli, Savoy, Brussels Sprouts, &c. Sow Radishes, Mustard and Cress. Sow Beet on well-prepared land. Sow Turnips and Spinach. Sow Parsley in rows. Towards the end of the month plant out Basil and Sweet Marjoram raised in heat. M. S.

FLORISTS' FLOWERS.

Cinerarias.—We will suppose specimen plants of these to be now in full bloom: consequently, great care must be taken to see they do not want for water. Weak liquid manure may still be given with advantage. Shade through the middle of the day, and give all the air you can, avoiding, as much as possible, any strong currents through them, as they are apt to curl the foliage and deteriorate the quality of the flowers. Still tie-down any lateral shoots to furnish the bottom of the plants. Sow seeds for autumn-flowering. *Pelargoniums*.—The plants intended for the early exhibitions will now, under the treatment we have previously suggested, be approximating towards flowering; great care should, therefore, be taken of them. As the flowers progress towards expansion, they should be protected by shade from the mid-day sun, and that industrious little insect cylept the bee must be rigorously excluded even from the precincts of the house. Some three or four times each week you may still advantageously apply a little weak manure water, and be especially careful that at the ordinary waterings you give a liberal supply; at this stage of their progress the plants peculiarly need it. Of the green fly take good care to prevent even the most distant approach. Of the plants to flower late have a care. It will tend to retard them if they are removed to a somewhat northern aspect; let there be room between each for a free circulation of air, and keep their shoots tied out with regularity.—C. TURNER, Slough.

Roses in Pots.—The forced Roses bloomed in winter and cut back in March, will now have made a second growth, the shoots of the Perpetuals being terminated with flower-buds. As the weather becomes warmer, less fire heat should be employed, and more air should be given. Syringe and shade as before recommended, using sulphur and tobacco liberally when needed, as correctives of mildew and green fly. My second, or succession-house of forced Roses is now in full bloom, and among some 600 plants there is not an aphid to be seen. Many of the flowers are 4 inches in diameter, quite equal in size and beauty to flowers produced out of doors. In addition to the list of superior kinds for forcing recommended in last month's *FLORIST AND POMOLOGIST* may be noted—Fortune's yellow Noisette, copper colour, desirable chiefly for its distinctness; Abd-el-Kader, H.P., purple, shaded with scarlet; Alexandre Fontaine, H.P., cerise; Amiral Gravina, H.P., blackish-purple; Henderson, H.P., purplish-rose, very large; Jean Bart, H.P., red and violet shaded; Madame Pardo, H.P., rosy crimson, large, full, and very sweet; Palestro, H.P., rosy lilac, large globular flowers; Catherine Guillot, H.P., pink, perfect in form, growth vigorous and handsome, excellent for forcing and pot culture generally; Victor Emmanuel, Bourbon, purple, and purplish-maroon, shaded; Cornelia Koch, Noisette, straw colour, a most beautiful forcing Rose; Marquise de Foucault, T., white, fawn, and yellow, beautiful form and very distinct. Continue to tie-out the young shoots of plants recently introduced to the forcing-house, setting them further apart than formerly, as the growth will, or ought to be more vigorous, and the leaves and flowers larger than those introduced earlier in the year. As the days become longer and warmer more water must also be given. The general routine of culture is the same for these as that already advanced for the earlier roses.—WILLIAM PAUL, Waltham Cross, Herts, N.



Muisia decurrens.

MUTISIA DECURRENS.

WITH AN ILLUSTRATION.

WE are indebted to Messrs. Veitch & Son, of Exeter and Chelsea, for the opportunity of figuring this very remarkable plant which had been sent to them from the Andes of Chili by their collector Mr. Pearce, and which bloomed in splendid style last summer in their Exeter Nursery—so finely, indeed, that when exhibited at South Kensington it gained a first-class certificate.

The Mutisias form a very curious set of sub-shrubby plants inhabiting South America, and belonging to the Composite family. They are mostly climbers with tendrilled leaves, which are sometimes simple and sometimes pinnated, and many of them have large showy “flowers.” Among these latter may be ranked the subject of our plate, which has the capitules or flower-heads as large, if not larger, and quite as specious as those of the finest Gazanias, with which they may very well be compared.

Mutisia decurrens is one of the climber species, and is of moderate size, reaching 6 or 8 feet in height, having slightly-branched stems, and bearing its large flower-heads at the ends of the branches. Its leaves are oblong-lanceolate, entire, produced at the apex into a forked tendril, and at the base into a leafy wing, which is continued some distance down the stem. The flower-heads are large and solitary, with a subcylindrical involucre of imbricated scales, and a spreading ray of broad strap-shaped florets of an intense orange colour, surrounding a central tuft of disk florets, which have long prominent styles and anthers. The ray spreads out to a diameter of between 4 and 5 inches, and is quite uniform in colour.

As a hardy climbing evergreen this plant is a welcome addition to our gardens, irrespective of the interest attaching to its curious structure. Its hardiness seems to be well established, inasmuch as it had withstood without the least injury the severe winter of 1860-61 at Exeter, where it had been subjected to 26° of frost; and at Messrs. Veitch & Son's, Combe Wood Nursery, Surrey, it has since stood unharmed through the last winter. It is stated to be a plant of easy cultivation. The specimen from which the flowers were obtained having been merely planted out in good soil against a north-west wall, where it had made vigorous growth, and had perfected many of its brilliant flowers.

HOW TO GET A SPEEDY RETURN FROM YOUNG VINES.

As a sort of sequel to Mr. Melville's method, as detailed in your March issue, of renewing Vine-borders without losing a crop of Grapes, permit me to offer a few remarks on the most speedy way of obtaining a crop in cases where the retaining of old Vines is not considered advisable. But, before proceeding, I would, however, avow that I am not an advocate for getting rid of old Vines simply on account of their age, and when all that is required to restore them to fruitfulness and vigour is a more congenial root medium. Under such circumstances, it is most undesirable to discard them to make way for young Vines. Much better is it to lift their roots and replace a cold retentive or otherwise disordered or exhausted border with one more suitable to the constitution of the Vine.

At the same time, instances are not unfrequently met with where Vines—both aged and young—have been so far mismanaged in many ways, that the surest and shortest way to accomplish the end in view is to root them up, make new borders, and plant young Vines.

The latter operation is very often dreaded and staved off from year to year from the apprehension that several years must elapse before young Vines can be got to yield even a moderate return of fruit. But, if there exists no more valid reason for hobbling along with a set of worthless Vines than the one just referred to, it is now being exploded by the practice of many gardeners who have hastened up from the old slow march into double quick time. To some extent, the practice of cutting down young Vines for several years after they have been planted, with the erroneous idea of strengthening them, has been the cause of the apprehension which it is my object to show is entirely unnecessary. It would not be difficult to raise unanswerable objections to the practice of cutting back to the front sash young Vines which the first season have made well-ripened growths as thick as a man's finger. Surely, to allow a Vine to run the length of a long rafter, and, it may be, down a back wall, developing itself into lateral growths and laying hold of the border with a network of roots, and then to cut it down near to the surface of the border and bring it away the second year with one shoot, is a questionable way of strengthening any Vine. The more likely way of increasing the diameter of the main stem and its hold of the border, is to leave the first season's growth at least a third the length of the rafter, and let it make lateral growths besides the leading one. By adopting the latter practice a few bunches of Grapes may be allowed with impunity, and the ultimate object—namely, a strong Vine the whole length of the rafter established with fruit spurs, is more speedily attained. My own practice is to leave them 6 to 7 feet upwards from the front light and take half a dozen bunches from each Vine, and thus a Vine is established the whole length of the roof in two or three years, instead of, as in many instances, six or seven.

But to enter more directly into the primary object of these remarks and show to the inexperienced (who may fear the sacrifice consequent on replacing old Vines with young ones to be more formidable than it really is) how to secure a very considerable crop the following season, a simple narrative of my own practice may serve to make the matter obvious and plain:—On entering on the charge of the gardens here in the summer of 1858, the state of the Vines made it advisable beyond a doubt to get rid of them and renew the borders with as little delay as possible consistent with a supply of Grapes which was at the same time desirable. With these ends in view, a quantity of young Vines that were struck from eyes in the spring of the same year were procured in June, and grown on into very fair fruiting Vines the same season. In November a new border was made to one of the houses, and by the end of May, 1859, the pot Vines above referred to had yielded 160 bunches of Grapes, and in June the permanent Vines were planted and made good canes by the end of the season. Instead of planting the ordinary number of two Vines to a light, three were planted, and when the Vines were pruned the strongest Vine in each light was left the full length of the rafter, and the others intended for the permanent Vines were cut down to within a few feet of the bottom sash, and were allowed to bear a few bunches each. These latter were cut further back than I deem necessary, so that the former might have more scope. The supernumeraries, ten in number, bore from eight to twelve bunches each in 1860 and finished them well both in berry and colour. In fact, this house furnished the table with more good Grapes than two of the old ones, with their almost 50 per cent. of shanking and shrivelling. When the crop was cut the stop-gaps were cut out, leaving the permanent rods, which in 1861 bore on an average ten bunches each. Another house, 65 ft. long, was planted contemporaneous with the above, and managed and cropped precisely in the same manner and with fully better results, inasmuch as the Vines

were planted earlier in the season and made finer growths than those in the house referred to above.

It will thus be seen how the possessor of only one vinery may improve his supply of Grapes the first year by the aid of pot Vines, so that the loss of a year's Grapes need not stand in the way of renewing the border and Vines. At the same time, the thick planting of Vines is very objectionable, and should only be resorted to for the sake of accomplishing the end at present under consideration, when such is specially desired. I think there is scarcely anything that can make up for the want of a full play of light and air about the stems and leaves of the Vine; and on the same principle I have a strong objection to low and small structures for Vines, having invariably observed that Vines attain to a greater degree of robustness and fruitfulness in large light structures enclosing a larger volume of air and admitting a greater diffusion of light. Nor is it to be wondered at that a plant that luxuriates the most on the breezy slopes and under the clear skies of continental and eastern countries should thrive better and be more fruitful in large, airy, and light houses than in smaller volumes of muggy, stagnant air enclosed, as is recommended by some, with rough plate-glass.

Archerfield Gardens, N.B.

D. THOMSON.

THE PLEA OF THE SCARLET PELARGONIUM.

WE are sometimes called Geraniums. Do not be alarmed, kind reader, or take this statement as a complaint. We are not about to confound you with distinctive characters. It matters not to us whether we take our name from Cranesbills or Storksills, since we know that both belong to the same happy family of Geraniaceæ. We have only too much reason to be proud of this connection; for cannot both branches of our family equally boast of including in their ranks the names of Royal Personages, of Dignitaries, and of Beauties? Do not each inscribe on their muster-roll the titles of kings, queens, and princes? and do not the names of heroes, of battles, of rivers, and even of volcanoes, define our characters and qualities? So far we are upon a level. It is true every one of us cannot appropriate the title of *Zonale*, although many of us do bear the badge of this (almost) order of the garter; and the title, but recently granted to us in common life, sounds grander than the more ancient one of Horseshoe. Really we feel our consequence and importance in society, and do not like to be ill-used or neglected. To the point, then, at once; and then we will leave our case and our cause of complaint in the hands of the public, feeling assured that justice will be done to us.

Our plaint is this: At the great exhibitions no awards are offered for what are called Scarlet Geraniums (more properly Pelargoniums), whilst all honour is bestowed, and justly so, upon the show Pelargoniums, which sometimes with their "Fancies" borrow our popular name. This neglect is much to be regretted; for whether the colour and abundance of our flowers, or the brilliancy of the foliage among our variegated varieties be considered, few plants are (we think), more truly ornamental in a conservatory or greenhouse than ourselves.

It is, however, decidedly a mistake to suppose that every variety of our race will make a good out-of-door plant, and be fitted for "bedding," or prove capable of enduring the changes of sun and rain; and it is to be desired (for it is but fair), that the same treatment should be bestowed on the Scarlet Pelargonium which the other kinds of Pelargonium enjoy. There are many varieties of our Scarlet family only fitted for pot culture, and which require the

protection of glass to bring them to perfection. A glance at the selection made for all purposes by our very trusty Privy Council, the Floral Committee of the Royal Horticultural Society, and so ably reported on by their Secretary Mr. Moore, will enable any amateur to make a safe choice for pot culture.

There can be no doubt, that if prizes were offered for Scarlet Geraniums (the name will come out), in their several classes, a most interesting feature in the autumnal exhibitions will be developed. The usual dearth of flowers in a conservatory in the autumn is universally regretted; but we are sure this defect is not without remedy. Those who would take the pains and trouble to tend us with careful and kind cultivation, would be amply remunerated. The varied and delicate tints now to be found amongst us are most exquisite, though we say it; but they cannot be appreciated or perfected unless proper treatment is given to us. May we not, then, hope to see awards offered this season for the various branches of our family, the plants to be grown in the same sized pots as those allotted for the show Pelargoniums, and our limbs to be as carefully trained? Many a despised though beautiful flower, depend upon it, which cannot endure out-door culture, would thus be found to commend itself to public notice; competition would be excited among those who devote themselves to raise up new and useful as well as ornamental members of our race; but, beyond all, justice would be done to a much injured party. Pray, Mr. Editor, help us.

S. G.

SOMETHING ABOUT GRAPES.

GRAPES early and late. The former has been ably advocated by Mr. Thomson, of Dalkeith; the latter by Mr. Tillery, of Welbeck—both great authorities: consequently, I will not presume to follow their views on the subject, but simply give my own.

In the first place, I will take the first week in March for my early Grapes; and am thoroughly convinced that the same house of Vines may be forced for a number of years with perfect success, when that attention is paid to the roots which Science and Practice combined should dictate to the operator.

I will endeavour to impress upon the minds of your readers the importance of artificial warmth at the roots. My first step is; after the Vines are pruned, and all the house, &c., thoroughly clean, a week before closing the house the outside border is covered with fermenting material about 18 inches thick. This is done early in October. The heat of the soil 1 foot from the surface of the border will range about 70°; the fermenting material will range from 80° to 90°. To maintain this steady heat, labour, material, and attention are all requisite. This course is pursued until the Grapes are ripe, all being kept comfortable under wooden shutters at an elevation to run off the wet. Having pursued this course for three successive years my reward is simply this:—Fruit of considerable merit; bunches averaging 1½ lb., with that beautiful touch of finish so much admired, which for convenience I will call a bluish-black. Although my Grapes are all I could wish, notwithstanding I have often wished for more sunshine, yet I quite believe that in the months of June, July, and August, very hot summers, generally produce inferior-coloured Grapes. What we require is a happy medium between the present dull season and a scorching sun. This vinery, let me be understood, has improved under this treatment; and I need scarcely say that several others in succession are treated in the same manner.

For early forcing, let me recommend artificial warmth at the roots to keep them both healthy and happy. From this source alone much of the colour, flavour, and bloom is obtained independently of sun and air, and must be

looked upon by all practical and theoretical men the only sound sustaining principle. Without doubt we attribute too much to the interior atmospherical treatment of our houses.

From March till October our supply is chiefly Hamburgs; November and December, Hamburgs and Muscats; January and February, Muscats, Barbarossa, Lady Downe's, and White Tokay. The two latter I believe are the best for February and early in March. I cut this year on the 8th of March beautiful Grapes of the latter two varieties. The White Tokay when well coloured is capable of producing a Muscat flavour. They were such that I had the credit of their being new Grapes. I do think that old Grapes should all be cut by the end of February, as their demands on the Vine are at the expense of the following crop. If in good condition when cut I cannot see any reason, in a cool shady fruit-room, why they should not remain so for ten days or a fortnight. Hanging Grapes on the Vine in March is only a secondary evil to extreme early forcing; but of the two evils I choose the least.

It is taking us by surprise when we read, "June and July are better wintering months for Vines than August and September." Mr. Thomson will, no doubt, confer a favour on myself and many others with humble capacities, who cannot sink to such depths of reasoning.

I can quite understand Grapes ripened under the influence of a moderate December sun being thinner-skinned than under the influence of an autumn sun. Nothing can seem more reasonable than that result. Neither am I surprised at Grapes colouring well with comparatively little sun when there is abundance of light. But I must confess I am astonished to hear of their colouring so extraordinarily when, during the process of colouring, they must have been something like two-thirds of their time in total darkness in December of the past year. I hope no one will try the further experiment of growing Grapes in a dark cellar, to prove also that light is unnecessary as well as sun to produce Grapes in perfection. Such an event may occur and cause some sensation. But for my own part I will be satisfied with turning autumn into winter for my early Grapes, and delight in having as much sun and light as the winter months will afford; I have on several occasions seen great gardeners allow a vinery now and again to turn summer into winter and other extraordinary things, such as two crops of Grapes in nine months, and ultimately lose all control over the Vines, until they have the satisfaction of seeing both Vines and border on their way to the rubbish-heap.

I hope to give in some future Number, a few remarks on the thinning of Grapes which in my opinion stands second only to colour and bloom.

Trentham Gardens.

A. HENDERSON.

POINSETTIA PULCHERRIMA.

As I intend giving your readers a few practical remarks on winter-flowering plants suitable for decorating rooms and dinner-tables, as well as general show-house and conservatory display, in the dark months of winter, I think the above plant worthy of a first place; for neither among stove nor greenhouse plants is there any other that can compare with this in brilliancy of colour; and flowering, as it does, at the most dreary time of the year, and also lasting, if kept in a moderately warm temperature, for at least two months, it is quite worth all the attention required, which is not much. Although an old and very common plant, there is no plant we see so many wretched specimens of, either in a small or a large state. Although within these few years the growers of plants for sale in Covent Garden Market have done them well in a small state, and probably

would grow large plants equally well if there was a demand for them, the same cannot be said for private growers generally. Of course there are exceptions; but the good grower will not be displeased at a few hints for the mass, as we generally see them grown with from one to six stems, with perhaps a dozen leaves on the top of each, and from 5 to 8 feet high, with the bracts about 6 inches across. Such plants may be of service to stand among large conservatory plants, for the colour, as the stems are not then seen, but what use are they for specimen decoration?

There are few gardens of any pretensions that there are not some old plants of the above, and it makes little difference to the well-doing of these next year, however bad they may have been grown this, which cannot be said of many pot-plants, or, in fact, of vegetation generally; and for myself, I would rather commence with some old neglected plants than have to buy young ones. But supposing we commence with a few bought plants. Get them in February, they will be then just out of bloom, and may be placed in a dry stove, with little water given to them for a fortnight, then cut down to about three eyes above the soil, and continue the dry treatment until they have made shoots half an inch long; then have some nice warm soil ready, and shake the old soil entirely away from the roots; and as almost all the old roots at the sides of the pots will be dead, clear these all away, but do not injure the living roots, as they are liable to bleed profusely; pot them in the smallest-sized pots the roots will go into, in a mixture of one part peat, one loam, and one thoroughly dried hotbed manure, with sufficient sand to keep it open. I keep all my potting soil in a dry shed, and have the turf cut when dry in summer, so that it requires water as soon as plants are potted; but if the soil was moist when used, they would not want watering for several days; and after, until growing freely, little water is required. As soon as potted, I place the plants in a moist growing heat of from 65° to 70°, in a vinery or a pit where they can be close to the glass. I never use bottom heat, and never shade the plants in any stage of growth. As soon as the shoots are about 2 inches long, I pinch out the points, when they generally make two shoots from each; and as soon as they have rooted well to the sides of the pot, give a shift into a size or two larger, keeping the plant as deep as possible in the pot. I generally give another shift about the end of July, stopping the plants as they make shoots until that time; but not after, as I find, even if stopped until the middle of September, they flower about the same time as those not pinched after July, and the foliage and bracts are much smaller. I use the same mixture of soil as at first potting, except adding more loam, and using less peat. They have the final shift about the third week of September, and require large quantities of water: during the summer I use strong manure water every alternate watering. To keep them dwarf, as soon as the shoots are about 18 inches high I commence tying down gradually, as it will not do to attempt bringing them to the horizontal at once, being very liable to split and break. I continue tying until the plants are in flower, by doing which I get plants about 4 feet through, and seldom more than 2 feet above the pot, with ten to twelve heads of bloom, each from 12 to 17 inches across the bracts, and the plants a mass of foliage; and the pots are about 12-inch, as large pots will not answer for drawing-room decoration.

When the flowers are past, I place them on the hot flue of a Pine-pit, and only give enough water to keep them from shrivelling; but allow the leaves to drop, and then cut down as mentioned before. The shoots may be cut into lengths of two or three eyes, or into single eyes as Vines; but either leave them for a day to dry the sap before putting in soil, or dip them in slacklime, which dries it at once. Put the cuttings in well-drained pots of sandy soil, water well, and plunge under a hand-glass in a strong bottom heat. They

require keeping rather dry until rooted, then pot off, and give them a close strong heat for a few days, when the same treatment as for the older plants will suit them; they will make specimens the following year.

I grow the most of mine, near the glass, in a very light Muscat vinery; but some of the best were kept in a vinery where the fruit was cut in July, and the front as well as top lights left open, day and night, until the middle of September, and then placed in the light part of a span-roofed stove with the others.

To obtain small plants for furnishing vases, dinner-table decoration, &c., I strike the tops of shoots, from the end of July until September, and pot in 3-inch pots. The July plants are shifted into 5 and 6-inch pots, and the late ones flower in 3-inch pots, when they make useful plants for turning out of pots to peep up above Lycopod-covered Orange-tree tubs, or to fill vases, with soil between and mossed over, as they will be from 3 to 12 inches high with foliage to the pot. These plants are kept close to the glass in a shallow pit, heated with pipes.

All the plants have two top-dressings during the autumn, not of fine soil, as sometimes used, but dried hotbed manure and strong loam, chopped together, with the fine sifted from it with a half-inch sieve, and a little silver sand mixed with the rough; it is soon filled with roots when put on the surface of pots, and also acts as a mulching. Of course it requires a little extra examination for watering; for, although the Poinsettia is a very thirsty plant, if the soil gets sodden the feeding-roots perish, and it loses all its leaves.

I need not mention that they require keeping clean and free from insects, as it is well known no plant can be grown satisfactorily without that attention: but as it is also well known that the Poinsettia is particularly liable to be infested with bug and scale, we must spare no pains to keep those pests at a distance. Here, we have no bug; but after cutting the plants down, I have the stumps painted with soft soap, tobacco water, sulphur, &c.—the same mixture, in fact, that we use for the Vines, and find it does the plants no harm, and sets vermin at defiance.

Teddesley Gardens, Stafford.

JAMES TAPLIN.

BLOOMING ISABELLA GRAY ROSE.

IN page 7 of the *FLORIST AND POMOLOGIST*, the Rev. W. F. Radelyffe describes the difficulty experienced by many, as well as by himself, of getting Isabella Gray and Cloth of Gold Roses to bloom. Will you kindly permit me, through you, to inform him of the probable cause, but at any rate of a certain remedy?

As to the first, both these Roses are early bloomers and require an early stock for working on: this is met by my remedy, which is the second and most important part of this communication.

Having two old trees of the common old-fashioned White (centre lightly blush) garden Rose covering a large space on a south wall, I tried buds of Cloth of Gold, Saffrano, and Isabella Gray on young wood, and the former has bloomed freely and splendidly for five years past; and the two latter kinds for the last two years equally well. I tried Banksian and other stocks; and although Saffrano did well almost anywhere, I never succeeded in getting one bloom of the other varieties until I worked them on the White Rose, which is a very early bloomer. The Cloth of Gold is very capricious, both as to soil, climate, aspect, and treatment, so I will just add that soil is rather a poor one—worn-out gravelly loam; climate too moist for pleasure, but otherwise genial; the aspect due south; treatment, liquid manure two or three times a-year, and no pruning

save of dead or broken wood. Every spray is trained-in, and the three Roses have nearly occupied the large space which the old White held possession of for many years. I believe it to be the best of all parents for all spring and summer Roses, but have not yet tried Perpetuals upon it. I will only add that several fine buds are now formed on the Cloth of Gold branches; Isabella Gray is vigorous and covered with blooming shoots, but the buds are always rather later and not yet developed.

AMICUS.

P.S.—I may observe that the outer petals of the Cloth of Gold flowers are very pale; but for beauty and size they are all that can be desired.

DIANTHUS HYBRIDUS MULTIFLORUS.

WITH AN ILLUSTRATION.

THIS is a mule Pink, but it is quite unlike any other mule Pink with which we are acquainted, and is one which we think deserving of being introduced to general cultivation on account of its free-flowering and free-growing habit, and the pleasing colour of its abundant fragrant blossoms. We are indebted to the Messrs. E. G. Henderson & Son, of St. John's Wood, for the specimens from which our figure and memoranda are derived.

The foliage of this plant is that of the Carnation, minus the glaucous coating which covers it—that is to say, the leaves are tufted, narrow, and grass-like, but they are of a deep full green instead of being covered with a glaucous bloom. The flowers, which are freely produced and produced in succession, are of a lovely rosy colour and very sweet; they are small but double, and sufficiently numerous to be effective. The plant is of continental origin. One of its parents has evidently, we think, been the Carnation or Clove, the fragrance of which it retains; and from its successional flowering habit, we may probably conclude that it is one of the Perpetual-flowered race of Carnations from which it has been produced. When planted out in the open borders, for which purpose it is well adapted on account of its vigorous sturdy habit, it forms a dense compact tuft of dark green herbage, attaining some 6 or 8 inches in height from the surface of the ground. From amongst this herbage there are produced, to the height of a foot or more, numerous flower-stems, sturdy and freely branched, bearing a profusion of gay, rosy crimson, sweet-scented flowers, which are of varying shades according to their age. These flowering-stems are sent up almost continuously in succession; the free, vigorous constitution of the plant insuring a supply of young successional growth throughout the season. For all decorative purposes, except that of strictly formal geometrical gardening, we consider this mule Pink to be a very appropriate and welcome subject.

As a pot plant for spring-flowering it is, we know, very useful and efficient, growing freely in an ordinary frame or greenhouse, and coming into flower in the latter situation without any artificial aid by the end of April. It forces well, and with established plants there is no lack of flowers. It is, moreover, an excellent subject for bouquets, for which its sweetness is, of course, an additional recommendation.

The Pink is more decidedly perennial in habit than other mule Pinks which have appeared in cultivation, and it produces an abundance of "grass," or young leafy shoots, by means of which it may be propagated to any extent with great facility. These two characteristics, combined with its successional flowering character, its sweetness, its lively colour and its profusion of bloom, fully justify us in recommending it for general cultivation as a decorative plant of the useful order.



Pink.

Dianthus Hybridus Supertus.

J. G. Thompson, Des. & Engr.

Printed by C. C. Brown.

PAGES FROM MY NOTE-BOOK.—PITCHER-PLANTS.

I OFTEN think of old Stephen Jones, my first schoolmaster. Peace to his memory, he was a good old man! Under him were my first lessons in geography learnt; every Tuesday and Friday morning we had a certain task to learn about the boundaries, the number of the population, and the religion of the people of some particular country, all of which, as is the case with most boys, we managed to forget before the close of the week. But the geographical lessons by which I really benefited, and which I have turned to profitable account since, were learnt beside my father's hearth when the silent mantle of snow lay upon the fields around, or in the summer-house at the bottom of the garden when the glow of sunset was on the summer evening sky; for old Stephen had been a steward on board a man-of-war, and many a long yarn he used to spin as my father and he sat smoking their pipes, and we boys, full of admiration, stood listening around. Stephen had spent many years at sea—he had seen God's wonders in the great deep—there was scarcely a remarkable place in the world which he had not visited. He had been an observant man, too; and, being better educated than most men in his sphere of life, could graphically describe the physical characteristics, the productions, and the climate of many lands. All his stories were treasured in our memories; there was no fear of these being forgotten, and in my particular case these stories developed that intense love of travel which has, to a certain extent, been satisfied by my wanderings in many a foreign land, but which will never be quenched. I have always thought that every man who travels should set himself to observe and examine a certain class of facts, and he should choose those kinds of facts for which he had a natural predilection. I had a love of plants and flowers from my childhood, and consequently, having chosen horticulture for my profession, I have always paid more attention to these than anything else. I think I may, without boasting, say that I have had the opportunity of observing myself a good many interesting facts with regard to plants, and my note-books contain many jottings concerning them. More than this: I have, whenever I have found men with a similar love of observation, made friends of them, and I have thus become acquainted with people in many parts of the globe; I value their letters very highly, and keep them carefully arranged. With the same object in view I have read all the books of travels, new or old, which I could obtain, and gleaned from them as much as I could concerning the vegetable products of the countries treated upon—little enough this is usually. Few books of travels have been written by men fully qualified to do justice to their subjects. Many authors consider that a few months spent in a foreign land, a hurried run through a few of the more noted places, and a glimpse at some of the leading features of the country, are quite enough to justify them in producing a two or three guinea book upon the subject; on the other hand, the mere length of time which a person has lived in a foreign land is not in itself a sufficient preparation for such a work. Of this I might mention some notable instances, but this is no place wherein to give a criticism upon travellers and travelling; it is sufficient for my purpose to say that the men who have diligently prepared themselves by previous study are few indeed. The world has not produced many travellers like Humboldt or Hooker, who have been able to observe and record those kinds of facts which are, at the same time, valuable and interesting to the plant-grower and to him who loves the plants for their own sake. The facts with regard to the temperature and moisture of the air, the particular circumstances under which such and such a plant grows in a state of nature, and the mode of cultivating the fruit trees, the officinal and the ornamental plants of foreign lands, must be sought for through many volumes.

So much by way of preamble, and as an answer to the very natural question which the reader may be expected to ask, What do these note-books contain? They are filled, then, with practical observations upon plants, descriptions of new or rare ones, notes upon their peculiarities, observations upon the exhibitions and other passing events of horticultural interest, quotations from rare books of travel which describe the climate or the vegetable productions of foreign lands, or which may throw light upon the successful manner of treating them under cultivation, and extracts from private letters having the same objects in view. Let us copy a page from these note-books by way of example:—

It would be a difficult matter to find in the whole vegetable world a more interesting group than that of the Pitcher-plants. The curious appendages to the leaves, which present a more or less perfect resemblance to the form of a pitcher with its lid, have given rise to strange traditions among the natives of the countries where these plants grow wild; and among the civilised and educated people who have seen them under cultivation, they have been the subject of stories which contain scarcely more of truth than those wild Malayan traditions. It is a generally received idea among many, that in the Pitcher-plant Nature has provided a supply of water by means of which the traveller in the desert may slake his thirst; the lids open, they say, at night, in order to catch the dew, and close again during the day to prevent evaporation. Nothing could be much wider from the truth than these statements; in the first place, the plants will only grow where there is a plentiful supply of

water, and where the atmosphere is more than usually moist; and in the second place, the lid never closes again either by day or night after it has once opened. And again, the water which usually half fills the pitchers is not rain or dew which has been collected, but is secreted by the plant itself from the inner glandular surface of the pitcher. It is said to be eighty years since the first species, *Nepenthes distillatoria*, was introduced from the southern part of China—it was followed by one or two other nearly allied kinds; but about fifteen years ago *N. Hookeriana*, and the still more remarkable *N. Rafflesiana*, with its large pitchers mottled with brown, were introduced. Then came another Indian species having a white rim to its pitchers, which was consequently called *N. albo-marginata*: this is still very rare in our gardens. Within the last year or two Mr. Veitch has imported several still finer and more remarkable forms, the best of which are *N. lanata* and *N. sanguinea*. But, curious and extraordinary as these plants are, they will not bear a comparison with those which still blush unseen in their native localities. All Pitcher-plants are inhabitants of the East, and they seem to be more plentiful in the island of Borneo than elsewhere. We may not hope soon to see them in our hothouses, for there are great difficulties preventing the traveller from wandering far from certain ports. A great part of the island is covered with a dense impenetrable jungle, and, of course, there are no roads worth the name; but the greatest difficulty is, that the natives in the more remote part of the island have an unpleasant habit of massacring any strangers whom they may happen to meet with. Still we know from dried specimens what magnificent kinds are growing there. Mr. Low, the son of the celebrated nurseryman of that name, and Mr. Henshaw, botanical collector for Mr. Rolisson, have both of them sent home dried pitchers of ten or a dozen species, some of which are capable of holding two quarts of water. Mr. Low has recently returned to England and has, we understand, brought with him some of the most striking plants of the island.

So recently as 1829, London admitted that *N. distillatoria* was a rare plant and extremely difficult to grow, and that it was as great a puzzle to botanists as to cultivators; but horticulture has made rapid strides since 1829, and the difficulties which surrounded the cultivation of the *Nepenthes*, as well as many other plants, have vanished. The soil which they like best is light fibrous peat, broken into rough pieces, with handfuls of broken pieces of charcoal thrown in here and there, so as to keep the soil perfectly open. These bits of charcoal should not be mixed indiscriminately through the soil but be placed in little clusters, for the black wiry roots like to get clear of the soil sometimes, and revel in such a position. Good drainage is an indispensable requisite, for the plants require plenty of water; but it must by no means be allowed to stagnate in the soil, or it will soon become sour. But the best soil will be useless unless other points are carefully attended to; and one of these points upon which experience teaches me to lay more stress than any other is, that the plant never succeeds if the pot in which it is grown be exposed to the air. If you have several plants and are obliged to grow them on a shelf, put a few pieces of board round them and fill in between the pots with clinkers, broken pots, or any similar substance; cover over with a little rough soil, and plant the surface with one of the common *Lycopods*; this will give them a neat appearance and be very beneficial to the plants. They should be grown in a house where the temperature is never allowed to fall below 60°, and may, with sun heat in summer, rise to 95°; they will require to be shaded from bright sunshine, and may be syringed as frequently as convenient during the day—it should never be less than twice a-day in summer. There are few plants more difficult to propagate from cuttings than the Pitcher-plants, still it can be done. Each cutting should be placed in a small pot and fastened so that it cannot shake about; a brisk bottom heat in a close frame or under a hand-glass is the most favourable position in which to try them.

DELTA.

THE METROPOLITAN FLORAL MEETINGS.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, *April 23rd*.—Mr. Cross, gardener to Sir F. H. Goldsmid, Bart., and Mr. C. Turner, Slough, were first in the two classes for six *Pelargoniums*, some very nice plants of the older sorts being staged by them. With six British Ferns, from amateurs and nurserymen, the first prizes were taken by Miss Clarkson, St. John's Wood, and Mr. B. S. Williams, Holloway. Mr. James, gardener to W. F. Watson, Esq., Isleworth, was first with a stand of twenty-four *Pansies*; and Mr. Bragg, of Slough, second. The latter also had some blooms of the Belgian or Fancy kinds, but somewhat out of character. Certificates were awarded to Mr. Everest, of Reading, for *Genista Everestiana*, a rich orange-yellow-flowered variety, very well adapted for conservatory decoration. To Mr. Standish, of Bagshot, for a new striped-leaved Japanese *Convallaria*, with red stems and handsome striped leaves, and producing white flowers with green tips.

To Mr. Bull, of Chelsea, for *Woodwardia orientalis*, a very handsome Fern from Japan, and said to be hardy. To Mr. Standish, for a hardy greenhouse Japanese *Dendrobium*, and for a curious species of Fern from China, with bright green fronds. To Mr. Bull, for *Lomatia elegantissima*, and *Agave filifera*, two handsome-foliaged plants; and also for a vigorous-growing species of *Araucaria*. And to Messrs. Carter & Co., of Holborn, for their handsome-foliaged *Fuchsia*, *Meteor*. Groups of miscellaneous plants were furnished by Messrs. E. G. Henderson & Son, Cutbush, Williams, and Fraser; Mr. Cross also had a collection of Indian Azaleas; Mr. Turner, a group of very fine *Auriculas*; Messrs. Dobson & Son, a collection of showy *Cinerarias*; Messrs. Cutbush & Son, *Hyacinths* and *Tulips*; and Messrs. Paul & Son, Cheshunt, a collection of *Roses*, and pots and boxes of cut blooms of the same.

ROYAL BOTANIC, *April 30th*.—The best two groups of six *Roses* in pots came from Mr. Cross, gardener to Sir F. H. Goldsmid, Bart., and Messrs. A. Paul & Son. Mr. William Paul also exhibited. Messrs. Paul & Son were first with a collection of cut *Roses*; and in the two classes for six exotic Ferns, the first prizes were awarded to Mr. Hutt, gardener to Miss B. Coutts, Highgate, and Mr. Williams, of Holloway. Mr. Young, gardener to R. Barclay, of Highgate, and Mr. Cross had groups of the same. With six *Lycopods*, Messrs. Cutbush & Son were first, and Mr. Young second. Certificates were awarded to Messrs. Veitch & Son, Exeter and Chelsea, for *Adiantum chilense*, a Chili Fern with handsome drooping fronds; for the Golden Maiden-hair Fern, *Adiantum sulphureum*, likewise from Chili, a very handsome dwarf tufted variety; for a Chilean species of *Adiantum*, named *scabrum*, the Silver Maiden-hair, likewise a handsome dwarf variety; and for *Aralia leptophylla*, an elegant stove shrub. To Mr. Standish, Bagshot, for *Lomaria elongata*, a hardy New Zealand Fern of noble habit; for *Asplenium dissimile*, a very distinct Fern from Chatham Island. To Mr. Turner, Slough, for a horseshoe-foliaged *Geranium*, Nesfield, of dwarf habit, and producing long trusses of bright scarlet flowers. To Messrs. Ivory & Son, Dorking, for *Azalea Rifleman*, a semi-double variety, with well formed white flowers striped with carmine. To Mr. Barnes, Camberwell, for *Azalea Colossus*, a large and showy rosy salmon, with deep red spots on the upper division of the flower. To Mr. Williams, Holloway, for a distinct hardy species of *Yucca*. To Mr. Bull, Chelsea, for a handsome *Dracæna*, called *fragrans latifolia*. And to Mr. Turner, for a dwarf forcing Pink named *Rubens*, having blush flowers laced and blotched with crimson. It was said to be produced by crossing the old White with *Anno Boleyn*, and will no doubt prove valuable for market purposes as well as for the flower garden. Several other varieties of new plants were also produced by those who received certificates. A promising seedling *Pelargonium*, *St. Clair*, came from Mr. Turner; colour rich crimson, with dark spots on each petal, and light centre; and also the following *Cinerarias*:—*Eldino the Fair*, a heavily rose-tipped variety, with white ring round a dark disc; *Miss Franklin*, white ground, tipped with rose and dark disc; *King of Purples*, a deep rosy violet self, with dark disc; and *The Winner*, a bright rosy magenta, with light disc. The large number of seedling *Cinerarias* produced this season has no doubt created a dearth of names: hence the euphonious *nomen* bestowed here. Small prizes were awarded for groups of miscellaneous plants and cut flowers.

ROYAL BOTANIC, *May 7th*.—Groups of herbaceous *Calceolarias* came from Mr. James, gardener to W. F. Watson, Esq., Isleworth, and Messrs. Dobson & Son, of the same place. The second best from Mr. Shepherd, of Highgate, and Mr. Cross, St. John's Wood Lodge. Mr. B. S. Williams, and Mr. Hutt, gardener to Miss B. Coutts, were first in the two classes for six variegated *Caladiums*; and Mr. Cutbush also exhibited a collection. Certificates were awarded to Mr. Noble, Bagshot, for *Rhododendron Boothii*, of dwarf habit, and having yellow bell-shaped flowers. To Mr. Standish, Bagshot, for *Retinospora pisifera aurea*, a new Conifer from Japan, the young shoots having a yellowish tint; for *Osmanthus fol. variegatis*, a dwarf and hardy Holly-like shrub from Japan; for *Euryla angustifolia*, another variegated Japanese shrub; and for *Weigela Stelzneri*, from Belgium, and having deep rose-coloured flowers. To Mr. Williams, Holloway, for *Scrophularia nodosa variegata*, a hardy herbaceous bedding plant, the leaves margined with white; and for *Pteris serrulata angusta*, a very elegant dwarf Fern. Also to Mr. Standish, for *Aucuba japonica variegata*, having a yellow blotch in the centre of its green leaves. From Mr. Noble also came a collection of *Rhododendrons*, and from Messrs. Williams, Cross, and E. G. Henderson & Son, groups of miscellaneous plants. Mr. James, of Isleworth, had *Pansies* in pots, and cut blooms of the same; and Mr. Bragg, Slough, a box of Belgian kinds. *Cinerarias*, cut *Tulips*, cut *Verbenas*, and dwarf herbaceous *Calceolarias* came from Messrs. Dobson & Son, and *Tulips* in pots from Messrs. Cutbush & Son. Mr. Young, gardener to R. Barclay, Esq., Highgate, had a group of handsome-foliaged plants. This was the last of a very interesting series of spring meetings. They deserve to be supported by all who have the power to "lend a helping hand."

ROYAL HORTICULTURAL SOCIETY.—MAY 21ST.

THIS magnificent Exhibition was held in that part of the grounds immediately contiguous to the Great Exhibition, under a monster tent constructed for that purpose. In approaching the grounds from the main entrance, visitors passed through a large tent of Rhododendrons from Messrs. Waterer & Godfrey, of Knaphill, that in a few days will be a mass of brilliant colours, intermingled with flowers of lighter hue. Next was a smaller group from Mr. Standish, of Bagshot, and further on was the larger tent in which the plants were arranged. The groups of plants for showing effective arrangement in the decoration of a small conservatory were arranged in the western terrace; and the vases of cut flowers for drawing-room-table decoration, for which Lady Dorothy Nevill had announced prizes, found a lodgment in the conservatory. Some very pleasing and even unique designs were contributed here; but the arrangement was not completed until the day was somewhat advanced. The groups in the terrace were furnished by Messrs. Turner, Slough; Bull, Chelsea; Videon, Edgware Road; F. & A. Smith, Dulwich; and Mr. Young, gardener to R. Barclay, Esq., Highgate. Of these, Messrs. Turner's and Videon's were on raised stands, and formed very pretty displays, especially the former, which had a margin of variegated Geraniums, with an outer edging of the hardy Lycopodium. Mr. Bull seemed to have approached nearest to the idea of conservatory arrangement, as they were arranged on the ground, with walks among the plants; but the sober green of his collection was eclipsed by the gay colours of the florists' flowers, that entered so largely into the composition of his neighbours' designs.

The gardens are commencing to look gay; the process of "bedding-out" is fast approaching completion, and the two large bronze fountains were enlivening the scene with spasmodic attempts to emulate an April shower; and a group of talkative foreigners formed a foreground to the picture, puffing away at cigarottes, despite a polyglot notice conspicuously posted about the grounds, announcing the indulgence to be strictly interdicted.

On entering the tent the effect was very beautiful, the plan of the exhibition resembling that of the Royal Botanic Society both in regard to the ground plan and in the arrangement of the subjects; but the visitor here seems to get a better grasp of the *whole* exhibition than at the Regent's Park. The outer circle was formed of gigantic Azaleas, collections of greenhouse plants, and Roses in pots. The centre was devoted to florists' flowers and Orchids; the intermediate spaces being filled with groups of new plants, small Azaleas, &c. A supplementary tent also had collections of miscellaneous plants, the contributions of seedling florists' flowers for the supervision of the Floral Committee, cut Roses, new plants, &c. A goodly number of Judges were engaged: this insured due deliberation, while it also promoted expedition. Nearly 20,000 tickets had been disposed of up to the eve of the 20th; it was, therefore, highly necessary on this occasion, as on all occasions, that the judgment be accomplished ere the company is admitted.

Stove and greenhouse plants were in abundance; the same exhibitors that are chronicled every year, with about the same plants, and occupying about the same positions in the order of merit. Here and there a gay Allamanda, a brilliant Ixora, or a showy Pimelea seemed to struggle hard to impart a little cheerfulness to the inevitable dulness that characterises the sombre and unwieldy subjects that make up one of these collections—a gloom that was the more apparent from the close proximity of the groups of brilliant Azaleas.

Mr. May, gardener to J. Spode, Esq., Rugeley, Staffordshire, was first with fifteen varieties, comprising Azaleas, Eriostemons, Pimeleas, an immense Hedera tulipiferum, well flowered, Boronias, Ixora coccinea superba, Allamanda sepamoides, and a fine plant of Gompholobium polymorphum grandiflorum. Second, Mr. B. Peed, gardener to T. Treadwell, Esq., Streatham, with the inevitable duplicates of the first group. Third, Mr. Thomas Whitbread, gardener to H. Colyer, Esq., Dartford. With twelve plants, Messrs. J. & J. Fraser, Lea Bridge Road, was first with two varieties of Epacris, Azaleas Minerva and Fieldneri, three Ericas, two Polygalas, Boronia serrulata, Ixora javanica, and Pimelea spectabilis rosea. Second, Messrs. T. Jackson & Son, Kingston. Third, Mr. O. Rhodes, Sydenham. With nine plants, Mr. John Green, gardener to Sir E. Antrobus, Cheam, was first. Second, Mr. S. M. Carson, gardener to J. C. Sim, Esq., Nonsuch Park. With six plants, Mr. Ingram, gardener to J. J. Blandy, Esq., Reading, was first with Tetratheca ericifolia, Aphelexis macrantha rosea, Erica Cavendishii, Rhynchospermum jasminoides, Leschenaultia formosa, and Chorozema varium nanum. Second, Mr. T. Page, gardener to W. Leaf, Esq., Streatham. Third, Mr. C. Penny, gardener to W. H. Gibbs, Esq., Regent's Park.

Orchids were well represented, and generally had good bloom. Mr. George Baker, gardener to A. Bassett, Esq., Stamford Hill, was first with a fine collection, among which the following were most conspicuous:—Cattleya Mossie, C. citrina, Lælia purpurata, L. cinnabarina, Angulosa Clowesiana, Vanda tricolor, V. suavis, Phalenopsis grandiflora, Dendrobium Devonianum, D. macrophyllum, and Cypripedium barbatum. Second, Mr. Mil-

ford, gardener to E. McMorland, Esq., Ilaverstock Hill, with four varieties of *Cattleya Mossiae*, four *Cypripediums*, two varieties of *Vandas*, *Lælia purpurata*, *L. Brysiana*, three varieties of *Ærides*, an *Odontoglossum*, *Dendrobium*, and *Phalænopsis grandiflora*. Third, Mr. B. Peed. With twelve varieties, Messrs. Veitch & Son were first, having *Cattleya Skinneri*, *C. intermedia*, *Vanda suavis*, *Ærides virens*, *A. Fieldingi*, *Dendrobium Farmeri*, *Cypripedium barbatum superbum*, *C. villosum*, *Saccolabium guttatum*, *S. retusum*, *Phalænopsis grandiflora*, and a beautiful *Lælia purpurata*. Second, Mr. B. S. Williams, Holloway. Third, Mr. S. Woolley, Cheshunt.

The competition for the Bishop of Winchester's two prizes for a single specimen of Exotic Orchid brought but two subjects; the best being *Dendrobium Paxtoni*, from Mr. Woolley, and *Brassia verrucosa*, from Mr. Young, gardener to R. Barclay, Esq., Highgate.

Coming now to the Azaleas, it seems impossible to do justice to their grandeur. Of immense size, and literally clothed with flowers "as with a garment," they were altogether beyond the reach of rivalry from any other class whatever. Mr. Green and Mr. Carson were equal first with nine varieties. The former had *Sir C. Napier*, *Perryana*, *Coronata*, *Broughtoni*, *Symmetry*, *Præstantissima*, *Sincensis*, *Iveryana*, and *Variegata*; the latter *Carnea*, *Triumphans*, *Murrayana*, *Sir C. Napier*, *Rubra pleno*, *Broughtoni*, *Speciosissima*, *Exquisite*, and *Sincensis*. Second, Mr. T. Page. Third, Mr. W. Kailo, gardener to Earl Lovelace, Ripley. In the Nurseryman's class with the same number, Mr. C. Turner, Slough, was first with marvellous plants of *Chelsoni*, *Extrani*, *Glory of Sunning Hill*, *Juliana*, *Præstantissima*, *Murrayana*, *Iveryana*, *Criterion*, and *Alba Magna*. Second, Messrs. Veitch & Son, with *Toutoni*, *Broughtoni* (Knight's var.), *Mrs. Fry*, *Trotteriana*, *Empress Eugénie*, *Triumphans*, *Magnificent*, *Rosea Superba*, and *Juliana*. Third, Messrs. Fraser. With six varieties, Mr. C. Penny was first; Mr. A. Ingram second; and Mr. Chillman, Epsom, third.

The best group of six *Rhododendrons* came from Mr. Noble, Bagshot; and but one collection of six *Roses* was staged in the class for Amateurs by Mr. Terry, gardener to W. G. Puller, Esq., Ware—viz., *Baronne Prevost* (H.P.), *Souvenir d'un Ami* (Tea), *Lamarque* (Noisette), *Sylphe* (Tea), *Jules Margottin* (H.P.), and *Paul Perras* (H.B.). With twelve kinds, Messrs. H. Lane & Son, Berkhamstead, were first with H.P. *Triomphe de Paris*, *Louis Peronny*, *Jules Margottin*, *Duchess of Sutherland*, *Baronne Prevost*; H.B. *Charles Lawson*, *Paul Perras*, *Chénédole*, *Comtesse Mole*, *Coupe d'Hébé*; *Noisette*, *Lamarque*; *Tea*, *Souvenir d'un Ami*. Second, Mr. W. Paul, Waltham Cross, with H.P. *Baronne Prevost*, *Louise Odier*, *Jules Margottin*, *Lord Raglan*, *Duchess of Sutherland*; H.B. *Paul Ricaut*; H.C. *Chénédole*, *Charles Duval*, *Charles Lawson*, *Paul Perras*; and *Tea*, *Souvenir d'un Ami*. Third, Mr. E. P. Francis, Hertford.

Several collections of Cape Heaths were staged. The best six were from Mr. B. Peed; second, Mr. May.

The *Pelargoniums* were well-grown plants, but almost too early for the perfection of the flowers. With nine plants, Mr. T. Bailey, gardener to E. T. Drake, Esq., Shardeloc, was first with Mr. Marnock, *Eugène Duval*, *Sir C. Campbell*, *Desdemona*, *Elise*, *Monarch*, *Ariel*, *Lady Canning*, and *Osiris*. Second, Mr. Nye, Clewer Manor, with Prince of Wales, *Flora*, *Etna*, *Saracen*, *Sanspareil*, *Rose Celestial*, *Conspicuum*, *Fairest of the Fair*, and *Ariel*. Third, Mr. Shrimpton, gardener to A. Doxat, Esq., Putney. With twelve varieties, Mr. Turner was first with *Sunset*, *Symmetry*, *Prince of Wales*, *Roseum*, *Sir Colin Campbell*, *Rose Celestial*, *Beadsman*, *Madame Furtado*, *Desdemona*, *Fairest of the Fair*, *Vestal*, and *Viola*. Second, Messrs. Dobson & Son, Isleworth, with *Admirable*, *Vestal*, *Rose Celestial*, *Bride*, *Leviathan*, *Fairest of the Fair*, &c. Third, Messrs. Fraser. Mr. T. Bailey was also first with six Fancy kinds—viz., *Lady of the Lake*, *Celestial*, *Acme*, *Madame Sontag*, *Clara Novello*, and *Negro*. Second, Mr. C. Turner, with *Queen of Lilacs*, *Modestum*, *Acme*, *Madame Rougière*, *Zoe*, and *Lady Canning*. Third, Messrs. Fraser.

One collection of six *Cinerarias* came from Mr. Turner; they were *Perfection*, *Lady Scymour*, *Queen Victoria*, *Miss Smith*, and *Masterpiece*.

In the class for New and Rare Tender Plants in Flower, Messrs. Veitch & Son had a *Calceolaria* species from the Andes of Chili, having stout, vigorous foliage, and yellow flowers; *Sarmatoria repens*, a dwarf plant with scarlet flowers, also from Chili; and *Lælia Schilleriana*, with two very handsome flowers. Mr. May, gardener to J. Spode, Esq., Rugley, had *Erica Victoria Regina*, a very handsome and showy variety from the Cape of Good Hope. Messrs. T. Jackson & Son, Kingston, had *Clerodendron Thomsonæ*, from Old Calabar, having pure white and bright scarlet flowers. From Messrs. Low & Co., Clapton, came *Dendrobium solacense* and *Angulosa* species nova, two fine additions to this interesting class.

In class XXIII. for the same not in flower, Messrs. Veitch & Son had *Adiantum sulphureum*, *Cheilanthes mysuriensis*, *Adiantum scabrum*, *A. chilense*, and *Sphaerogyne latifolia*. Messrs. Low & Co. had *Musa vittata*, a handsome crimson-tinted *Anoctochilus* from Borneo, and *Pteris* species nova. Messrs. T. Jackson & Son had *Musa vittata*, very handsomely variegated, and *Cistus villosus*. Mr. B. S. Williams, Holloway, had *Cyperus alternifolius variegatus*, *Pteris serrulata angusta*, *Polystichum ordinatum*, and a variegated *Franciscea*.

Of Rare Hardy Ornamental Plants, a large collection was furnished by Messrs. Veitch and Son, from Chili and Japan; a like group from Mr. Standish, collected by Mr. Fortune; and the same from Mr. Bull.

In the Miscellaneous class a large number of plants, &c., were staged. Mr. J. Salter, of Hammersmith, had variegated hardy herbaceous plants; Mr. B. S. Williams, the same, also *Anœctochilus* and ornamental plants; the last-named from Mr. Hutt, gardener to Miss B. Coutts; variegated plants from Messrs. Veitch & Son, foremost among which were huge vases of *Caladium Veitchi*, *Alocasia metallica*, and *A. macrorrhiza variegata* from Ceylon, and a new *Amaranthus* named melancholicus ruber, from Japan, for bedding purposes, and said to be hardy; the same from Mr. Bull, of Chelsea, and also from Messrs. Carter & Co., Holborn, who had their *Fuchsia Meteor*, and a handsome specimen of *Coleus Verschaffelti*. From Mr. Daniels, Syncombe House, Henley-on-Thames, came a large bunch of *Bougainvillea speciosa*, in fine flower; cut Roses from Messrs. Paul & Son, W. Paul, and H. Lane and Son; cut *Pyrethrums* from Mr. Salter; English and Belgian Pansies from Mr. Bragg; and stands of twenty-four Tulips from Messrs. Norman, Woolwich, and Turner. A large number of seedling florists' flowers were staged for the inspection of the Floral Committee. Mr. Turner had seedling *Pelargoniums*—*Royal Albert* (Hoyle), a very large flower of fine form, rosy salmon with dark top petals and white centre, being marked by the strongest individuality. Mr. G. Smith, Islington, had *Petunia Eliza Mathieu*, which fully deserves all the encomiums passed on it. A well-formed and free-flowering white *Azalea*, with an occasional stripe of carmine, came from Mr. B. S. Williams; a white-foliaged bedding *Geranium* named *Snowball*, from Mr. Bull, evidently a sport from *Flower of the Day*; and from Messrs. Downie, Laird, & Laing, of Edinburgh, came a singular seedling Pansy, named *Aurea marginata*, a yellow ground variety, with a deep belt of crimson purple, and margined round the flower with yellow. While it will be an addition to the Fancy kinds, it will be rivalled by others in that unique class, by the eccentricity of its marking, while it will be surpassed by their showy and striking colours.

It is to be regretted that the weather proved so unpropitious. The announcement already made respecting the sale of tickets, proves that the Horticultural Society were already placed beyond the reach of pecuniary loss owing to the state of the weather. Quo.

REVIEW.

The Amateur's Rosarium; a Manual of Directions regarding the Culture, Propagation, and Varieties of the Rose. By the REV. R. WODROW THOMSON. Edinburgh: Paton & Ritchie.

THE author of the "Amateur's Rosarium" is evidently not an arm-chair gardener. He is one who not only knows what he is writing about, but has practised with his own hands all that he has written. Like the Rector of Rushton he is an amateur indeed, for he loves his Roses, he has experienced the pleasures they impart, and, like a true philanthropist, his desire is that others shall enjoy the same advantages as he has done. In his preface he says:—"He would conclude by recording the intense pleasure which Rose culture has afforded to him. It has tended to relaxation, in the midst of important professional duties. It has aided in the maintenance and restoration of health, and it has wiled away many a weary hour, in a way exempted from any risk of that censorious gossip, which other relaxations in the case of a clergyman are apt to engender. He will therefore be well pleased if he should be instrumental in adding to the number of *Manse Rosariums*."

In this admirably written work the author details, in clear and simple language, the complete management of the Rose garden; and we commend it most heartily to the perusal of our readers.

DYE APPLES.—The west-country papers contain accounts of the advance in the price of Apples in Somersetshire and Devonshire, owing, as they state, to a demand which has sprung up in Lancashire for this fruit; the acid obtained from which having been found valuable as a mordant to fix the colours of their manufactured articles. Will any of our Lancashire correspondents kindly inform us as to the facts of the above? We presume the acid named is malic acid, and as this principle is found in larger quantities in some varieties than others, we might probably assist them in determining which are the most valuable varieties for their purpose. The question is an interesting one to pomologists, as opening up a new field for enterprise; for if the demand is likely to be a permanent one, those varieties found to be specially adapted for this use should be the object of an increased propagation.

ABIES PELOPONNESUS.—Some months back the *Gardeners' Chronicle* gave a description of a Pine (or *Abies* rather) under the above name, taken from the work of some German botanist. The description was accompanied by a woodcut, showing a peculiarity this Pine, the author stated, possessed, of throwing up a number of new leaders should the original one be destroyed, or the tree even be cut down—a rare feature with coniferous plants. During a visit to the Sawbridgeworth Nurseries last autumn, this new *Abies* was pointed out to me, and at once I thought it very similar to *Abies cephalonica*, or *apollinis*, a tree now common, and introduced from Cephalonia many years ago by Governor Napier. On a closer comparison I felt convinced of their identity, supposing Mr. Rivers had the true variety. If I remember rightly, *A. peloponnesus* was stated to form isolated forests on Mount Olympus and the neighbouring ranges. On referring to Gordon, he states that *cephalonica* is also found there. May not, therefore, the German botanist have mistaken for a new species one long known to us under the name of *A. cephalonica*? I may add that the latter will invariably form new leaders, but whether to the extent given in the woodcut I cannot say; but it is not unlikely, however, it might do so under particular circumstances.—S.

How to Do It.—D. Walker, gardener, Kingston Park, Tunbridge Wells, very properly remarks in your April Number, "It would increase the value of your excellent periodical if your contributors were a little more definite in their dates and figures." It would also be none the worse if, when a person gives a remedy, he told how it ought to be applied. For instance, in the same Number "Nathan Cole" has a few terse remarks on Celery blight, the cause and prevention; and as a remedy he gives the following, "It is to keep the fly off your Celery by making it unpleasant for them; and this may be done by the following mixture:—A pailful of soapsuds; put in it one handful of lime, the same of flowers of sulphur, and one of soot." And thus he leaves us in a bewildered curiosity as to how and when it ought to be applied!—X.

CALENDAR OF OPERATIONS.

CONSERVATORY.

When the flowers of the Azaleas begin to die away, remove the plants to another house to complete their growth; pinch-off all the decaying flowers and seed-vessels. Look well over the plants for thrips; as soon as you perceive any, fumigate repeatedly until they are destroyed. Camellias in pots or tubs that have finished their growths and have formed their buds, may now be removed to a shaded situation out of doors; so also may *Acacias* and other large plants. This will make more room for the plants in flower, of which there is now no scarcity, and which should be frequently re-arranged, always removing every plant as soon as the flowers begin to die-off, and introducing fresh ones coming into bloom; this will give the house a fresh and more interesting appearance. Climbers will now need daily attention to keep them in order. Attend well to the watering of all plants in pots; if the soil is allowed to get so far dried that the fibres of the roots cannot absorb moisture from it, the plants will soon suffer. Give an abundance of air both by day and night. Shade in very bright hot weather, and keep everything scrupulously neat.

GREENHOUSES.

Many of the large specimens of the hardier and stronger-growing kinds may now be removed to a sheltered place in the open air; the other plants can then be set wider apart, and will get more air about them, which will much improve them. Any plants requiring a shift should at once be potted. Look daily carefully over all growing plants; stop all rambling growths, and attend well to the training and tying-out of the young shoots. On no account let the plants suffer for want of water; it is best given in the afternoons, and in hot weather a slight syringing will be beneficial to them. Shade in very bright weather, and ventilate freely both by day and night.

STOVE.

The plants in this house should now be growing vigorously. Shift at once any that require potting. Avoid crowding the plants. Give liberal supplies of water, and syringe freely. Attend to the stopping and tying-out of the shoots. Examine daily for insects; always try to keep them down. If allowed to increase they will not only soon disfigure the plants, but they are also much more difficult to extirpate.

FLOWER GARDEN.

The weather the past month has been so favourable for newly-planted things, that with a little attention and care the plants will soon fill the beds this season. Stir and rake the surface of the beds. Peg-down shoots as they advance in growth. Transplant hardy and tender annuals to their appointed places. Plant Dahlias, and keep them neatly tied to the stakes. Water well in dry weather such as require it. Look often over Rose trees, and keep them clear of caterpillars and aphids. Keep borders neatly dressed, and fill-up all vacancies. Clip Box-edgings. Roll walks frequently. *Pleasure Grounds.*—All newly-planted trees are the principal things demanding attention here at present. If the weather be dry, give them occasionally a good soaking of water. Attend regularly to the rolling and mowing of the grass.

FORCING.

FRUIT.—*Pine Apples.*—When the fruit begins to colour, water should be altogether withheld from the plants. Give them plenty of air whilst they are ripening. Plants that are swelling their fruit should be well attended to in watering, and the atmosphere should be kept as moist as possible. See the bottom heat is regular. The plants for "showing" fruit in the autumn which were potted last month will now be rooting into the fresh soil, and growing fast. See

they have a good steady bottom heat of about 85°; give them plenty of air and water when necessary. Shift all the young plants that may require larger pots, and keep them steadily growing. *Vines*.—The Vines in the early-houses must not be neglected after the Grapes are all gathered. Try to keep the foliage in a healthy state as long as possible, so that the wood and the buds may get properly matured. Pay every necessary attention to crops in the successional-houses. See our directions in previous Calendars. Keep fire heat to late-houses whilst the Vines are in flower. Water the inside borders well when they require it. *Peaches and Nectarines*.—As the fruit in the early-houses will now be ripening the atmosphere must be kept drier, and plenty of air should be given both by day and night. Remove or bend down any leaves that shade the fruit, that it may have the benefit of sun and air. In the successional-houses keep the atmosphere as moist as you possibly can by well wetting the borders and paths, and by syringing the trees twice daily, otherwise it will be difficult to keep the trees clear of red spider. Attend to the stopping and tying-in the shoots. Give plenty of air. *Figs*.—As water has only been sparingly given whilst the first crop of fruit was ripening, as soon as they are all gathered the borders should have a thorough good soaking. Give trees in pots and tubs plenty of liquid manure. Syringe the trees two or three times daily to keep down red spider. Maintain as moist an atmosphere as possible. Give plenty of air, especially in the early part of the day. After closing in the afternoons, well wet the borders, paths, &c. Thin the young fruit well if you wish those to ripen to be fine. *Cheerries*.—As soon as the fruit is all gathered, the trees should all be removed to some place in the open air where they can be properly attended to. Give them some weak liquid manure occasionally. Keep the leaves free of insects, and pinch back all long shoots. *Strawberries*.—By planting some of the best plants that are free of red spider on a south border, and well watering them, a good crop of autumn fruit can be obtained. Lay in small pots the first runners that can be had for early forcing next season. *Cucumbers and Melons*.—Pay strict attention to regulating the plants; keep the shoots from getting crowded. Keep up the bottom heat; give plenty of air and water, and maintain a moist atmosphere, except whilst the Melons are in flower.

HARDY FRUIT.

The crop of fruit this year is heavy, and, we hear, very general. The thinning of the fruit should be well attended to in time. Go frequently over the wall trees and well thin the fruit. *Peaches, Nectarines, and Apricots* should be attended to without delay. Pinch and disbud all shoots not wanted. Nail or tie-in young shoots as soon as they are sufficiently long. Pear trees are oftentimes plagued with caterpillars. Look often over them, and early in the month pinch-off the foreright shoots to within 5 or 6 inches of the base. This is better than removing them close off, which causes the other buds to break; when all danger of this is over next month, they can then be cut clean away. Apricots should be treated in a similar manner, also Apple trees on walls or espaliers. On the attention and management now given to the trees will, in no small degree, depend the next year's crop. By well thinning the fruit, by pinching-off and disbudding all shoots not wanted, and by keeping the tree perfectly clear of insects, we, with a favourable summer, will get fruit of superior quality, and the trees will be in a condition which will not lead to disappointment next year. Water Strawberries in dry weather.

KITCHEN GARDEN.

In consequence of the unfavourable weather the past spring, every attention must now be given to the young crops by timely thinning, weeding, and hoeing, and by well watering in dry weather. Get the first crop of Celery out at once in well manured trenches. Beet, Carrots, Parsnips, Onions, Salsify, and Scorzenera should all be finally thinned. Continue to hoe and earth-up Potatoes. Plant Lettuces

and Cauliflowers. *Brussels Sprouts, Torcecole, and Savoys*.—Plant early in the month on rich land. Sow Lettuces and Radishes. Sow Turnips. Sow Endive and Spinach. Sow Kidney Beans on a south border. Sow Broad Beans about the middle of the month for an autumn crop. Sow Peas the first week, and again the third, after which they do little good in general sown out of doors; but an excellent plan to get a late crop, is to sow some early variety in pots or boxes about the 20th of the month, and plant-out early in July on a south border. *Parsley*.—Thin well out. Dust well with lime on dewy mornings; it will save your seedlings from the attacks of slugs. Keep the hoe continually going, and give no quarter to weeds.—M.S.

FLORISTS' FLOWERS.

The Cineraria.—We will suppose this to be now nearly out of flower, and consequently requires great attention to prepare it for the ensuing season. It should now be placed in a cool situation under a north wall or hedge, and as soon as the wood is properly matured cut down to within 3 inches of the surface of the soil. Stir the surface of the soil slightly, so as not to injure the suckers, then surface with any light compost. Sprinkle frequently, and protect in very wet weather by lights or other covering to carry the water off. As soon as ready, take off cuttings and place them in pots in a shady situation under a hedge or north wall, under lights or hand-glasses, to protect them from the air. As soon as rooted, pot-off and encourage by frequent shiftings into larger pots. Sow seeds for early bloom. *Pelargoniums*.—The plants will require to be carefully shaded, and air should be freely given day and night, guarding the openings with fine net so as to exclude the bees, or the blooms will be of short duration. Water the plants in the morning and keep the house dry, so that but little moisture may arise at night and during dull weather. Attend to keeping the plants clean, and use every means to keep the green fly in check. Stake and tie the late-blooming plants as they advance in growth, and as soon as the early plants have done flowering they may be removed to a sheltered situation out of doors. Be sparing with the water, to enable the wood to become nicely matured before cutting-down.—C. TURNER, Slough.

ROSES IN POTS.—Surely no one who saw the Roses in pots at the exhibitions last month could withhold the wish to cultivate the Rose as a pot plant. And nothing is easier. Begin now with young plants, which, as they are often purchased from a distance, travel cheapest and safest in small pots. Repot the plants on their arrival, and place them in a warm greenhouse, or on bottom heat out of doors till September; then ripen the wood by the gradual withdrawal of moisture and heat. I am now writing surrounded by plants, many of them 6 feet high, which have been brought to their present state by the treatment above recommended; they are studded with blossom—all that could be wished for in form, size, and colour, and it would be difficult to say whether their beauty or fragrance is most bewitching. Plants which have done blooming should now have the seed-vessels picked-off; harden gradually and plunge them out of doors (not too close together); cover the surface of the ground with half-decayed manure; attend to watering and the destruction of green fly till they are taken up and housed in September. But there are, or should be, many plants still covered with unexpanded flower-buds, for we cannot dispense with Roses in pots till the middle or end of June; the garden may already yield a few straggling flowers, but we can scarcely ever find sufficient variety in the open air till that period. Henceforth, no artificial heat is required for Roses under glass. A thicker shade than heretofore, and more water are necessary. It is scarcely possible to give too much air in warm weather, although in this changeable climate great watchfulness is required in order to regulate the admission of air according to the state of the weather out of doors. The general routine of culture is the same now as in April and May.—WILLIAM PAUL, Waltham Cross, Herts, N.



Azalea Mars.

C. Chabot, Zucc. 9* Sluett. St.

AZALEA MARS.

WITH AN ILLUSTRATION.

WE are indebted to Mr. Kinghorn, of Sheen Nursery, Richmond, for the present opportunity of figuring the fine variety of Azalea called Mars, which we believe we may correctly describe as the brightest of all those with red flowers approaching to scarlet. It is indeed a remarkably brilliant and attractive flower.

Mr. Kinghorn has been remarkably fortunate in having raised and sent forth during the last year or two some varieties of very high merit. One of these, named *Kinghornii*, has rosy flowers, well formed, remarkably smooth, and beautifully spotted; another, called *President*, has finely-formed and well-marked blossoms of a deep salmon red; and another again is this *Mars*, which we now figure. The latter, when shown not long since at a meeting of the Royal Horticultural Society, was commended both on account of the form of its flowers and their brilliant colouring, so that we may regard its merits as being well attested. Technically it may be described as having the flowers large, smooth in texture, and firm in substance; the segments broad, rounded, and even; the upper ones conspicuously spotted with purplish-crimson on a ground of bright orange red approaching scarlet, which is common to the rest of the corolla. The variety has something of the character of that called *Perfecta elegans*, but the colour is decidedly brighter, and the other properties of the flower are fully equal if not superior to those of that variety.

During the present season we have had some remarkable additions to this already brilliant and popular family. The most meritorious is one called *Duc d'Arenberg*, a salmon pink variety, deeply bordered with white, occasionally striped with carmine, and spotted below the sinuses of the upper segments with deep rose red. This, which is of Belgian origin, is in every way a first-class Azalea, the form and technical properties of the flowers being all that can be desired, and the colour remarkably pleasing and effective. Still more striking as to colour is another new Belgian variety called *Souvenir du Prince Albert*, which has flowers of a bright and deep salmon rose, very rich, with a broad pure white margin and semidouble. In its deep ground colour and the strong contrast of the margin, this is as yet unrivalled, but it is hardly sufficiently filled-out in its outline. We are glad to be able to conclude our notice of this fine Azalea by some cultural directions with which we have been favoured by Mr. Barnes, of Camberwell, himself the raiser of some extremely ornamental varieties, one of which, called *Magnet*, ranks among the most useful of its race:—

“The additions which have been made within the last few years, some of which have been obtained for us by English growers, and many others by our French and German friends, have wrought a considerable change for the better in the aspect of the varieties of Indian Azaleas most generally cultivated. A few years back any new variety with striking colours was considered a great acquisition, without regard either to the shape of its flowers or to its habit of growth. That time, however, is past; and now, unless a variety combines along with beauty of shape and stoutness of texture in the flowers a vigorous habit of growth, it is not considered of first-rate quality.

“There are few plants more easily cultivated than the Azalea. It can be propagated by cuttings or by grafting. The latter plan is generally resorted to when the variety is considered weak in constitution; as by selecting fine, strong, free-growing, robust kinds for stocks, and grafting them while the stocks are vigorous and full of sap, fine plants will soon be had, if proper care is given to them.

"The best compost I have found for them is fibrous peat mixed with a liberal allowance of silver sand. The pots must be well drained when plants are shifted from a small pot to a larger one. The soil should always be made quite solid by ramming it down with a hand-rammer, and a little sand should be shaken over the top of the mould to prevent it from cracking. After potting, the plants should be placed in a moist temperature with a moderate bottom heat, and when placed under such conditions they will soon make rapid growth.

"While the plants are young they must be trained into the shape they are intended to bear when they have become mature. This may very easily be done by putting a stick to each plant while quite small, even when in a thumb-pot; and then, after selecting the longest shoot for the centre, tying it upright to the stick. When the shoot has made about 6 inches of growth the top is to be pinched-off, which will cause it to throw out young shoots all up the stem, and thus the plant will become furnished. As it advances in growth, and as soon as the side shoots have reached about 4 inches in length, their tops must be pinched-out also. In this way each plant will be made to form a small pyramid; and by following up this practice throughout its growth it will always retain this shape. Loose straggling shoots, or those having any tendency to become so, must be pinched back. Should there be any shoots that do not seem disposed to break as freely as the others, they are to be tied down to the stick with thread or small twine, and this will give them a check and cause them to break freely. It will also bring them into a pendent position, and when once the wood is set it will never rise again; but as the plant goes on growing each shoot will droop over that beneath it, and a very elegant and graceful form will be secured. Only one central stick is to be used, and this is to be introduced when the plant is very young. As the plant grows larger and a longer stick becomes necessary, or when the stick itself decays at the bottom, it can easily be replaced by another of appropriate size. The plants should be frequently and thoroughly fumigated to keep down the thrips and other insects."

A CAUSE FOR GRAPES SHANKING AND NOT COLOURING.

THE general opinion with regard to Grapes shanking and not colouring appears to be that the fault must be laid to the roots and border. And I do not question it in many cases; for if the Vines are planted in a cold, deep, undrained border, it is useless to expect a crop of well-coloured fruit. I also think it quite possible, even in an average good border, if a soaking of cold rain falls on the border just as the Grapes are changing colour it will cause shanking, and a continuation of wet will prevent the fruit colouring. But how often do we see and hear of Grapes shanking and refusing to colour on Vines growing in a border made on the most approved plan, and in some cases planted inside the house; in the latter instance it was surely not caused by the wet cold border. In such cases I could invariably trace it to what in my humble opinion was the cause—namely, want of sufficient healthy foliage to bring the crop to perfection, and ripen the wood for the future season; without which the crop gets less each succeeding year, until, just as young Vines ought to be in full bearing, they have to be rooted-out, and all the additional labour and expense of making new borders gone over again, to say nothing of the annoyance and inconvenience of losing the crop for several years.

We often see the wires that Vines are trained to not more than 8 or 9 inches from the glass. The foliage soon gets cramped by the glass, water lodges on

it, and the sun soon burns it in blotches; the laterals are dried and scorched at the points from the same cause, and the fruit suffers from the want of the support it would get from plenty of healthy foliage. I have seen houses of Vines planted inside, the roots confined for space, and, from the appearance of surface soil, the border was well supplied with water; but, on examining below the surface, have found it as dry as dust, although a very little discernment would tell from the colour of the foliage what was going on below. Still we hear of surprise at Grapes not colouring and shanking; but I should be more surprised if they did finish off well if the foliage was not good, as I never yet saw an instance of Grapes ripening well if not plenty of healthy foliage on the Vines. If the roots of Vines are in a well-prepared border and trained not less than 15 inches from glass, there is then space for air to circulate between glass and foliage; or, in short, the foliage not high and the roots not low. I do not advocate leaving the laterals to grow wild; but after Grapes are thinned until ripe I do not keep the laterals stopped so close as is generally done, as I find they rather assist than rob the fruit. I have seen part of the shoot as well as lateral cut away to admit light and assist colouring, when evidently it was the want of sufficient healthy foliage prevented colouring.

I hope before many years to see the system of heating borders to both early and late vineries become general. Where it is done it is little trouble to keep Grapes in good condition till March; and Muscats may be grown, with as little trouble, and as perfect in bunch as Black Hamburgs. C. C.

LATE VERSUS EARLY GRAPES.

Not having received the May Number of the *FLORIST AND POMOLOGIST*, I did not see friend Thomson's challenge to show his winter-ripened Grapes against late ones in January and February, until noticed lately in the *Gardeners' Chronicle*. I shall be quite prepared to do battle with him during these months at the several meetings of the Fruit Committee of the Royal Horticultural Society. I am glad the question of late and early Grapes has led into the discussion such excellent cultivators as Mr. Henderson, of Trentham, and Mr. Thomson, of Archerfield. Their articles on Grape-growing in the last Part of the *FLORIST AND POMOLOGIST* are interesting communications on the subject, and cannot fail of being useful to the uninitiated in Grape-growing.

WILLIAM TILLERY.

BLIND DAHLIA ROOTS.

I HAVE lately heard complaints from several persons who purchased Dahlias last spring, that although these plants flowered and the roots are perfectly sound, and even make fresh roots when put into a gentle heat, yet they show no signs of pushing. The only two that I purchased are in a similar state. I attribute it to propagators being too anxious to make stock, and propagating from improper cuttings. The true cutting should, in my opinion, be taken off as soon as the leaves expand close to the roots. In this state it is solid, and round the base of it you can plainly see small buds, which, I suppose, remain dormant until the following spring, and from them you must expect to furnish a fresh stock of plants. What I designate improper cuttings are the tops of cuttings and cuttings taken off above the dormant buds which cause them to push, and from which you get a quantity of stock, but being without the

dormant buds at the base they only last for a season, and instead of the roots pushing the following spring you find them blind, and, consequently, you have lost the variety altogether. If I am wrong in these remarks I shall be glad if either you or some of your numerous correspondents will correct me.

There is no doubt that many plants are propagated to excess; for instance, the Hollyhock. A new variety, which commands a high price, is not often sent out until March, and then so small that it requires considerable nursing to make it into a respectable plant. The other day I noticed in a catalogue, under the head of Hollyhocks, that they did not practise the system of grafting; the reason assigned was, that plants so raised were short-lived. This is the first time that I ever heard of grafting the Hollyhock; but, at any rate, I take it for granted, that there is a mode of propagating them that might for a time suit the propagator, but which is almost valueless to the purchaser.

Birkby, near Huddersfield.

J. RILEY.

WINTERING GRAPES IN SUMMER.

As an interesting spectator of the elegant and instructive sparring match between Messrs. Thomson and Tillery, I beg your correspondent's pardon for laying my hand on his shoulder and saying, "Hush!" Please, Mr. Henderson, not to draw off the attention of the combatants till they have finished, and kindly accept an answer to your question, at present, from one outside the ropes. By the expression "wintering in summer" is meant, as of course you understand as well as myself, doing the work of winter in the summer; his object being to do the work of summer in the winter without injury, as it has been found by experience that both are necessary to the health of the Grape Vine. The winter's work being to give rest to the plant, and to ripen its new wood, his assertion is, that these results are more easily secured in the hotter months of June and July than in the comparatively cooler ones of August and September; and I think he is right, and that on reflection you will see that at least this is possible. A striking instance that occurred a few years ago will make this plainer than any reasoning. I regret that, being from home, and unable to refer to authorities, I must give it from memory, and therefore may be wrong in the name and place, but the account in its important part is substantially correct. I think I met with it in the "History of Ceylon," that Sir Emerson Tennant introduced the Vine into the Government gardens in that colony, and it was found that, being there an evergreen, owing to the climate being a perpetual summer, it produced no fruit. The gardener then devised a plan for wintering it, and for the two hottest and driest months in the year he laid bare its principal roots. The effect was a shedding of the leaves, and the plant going to rest, and the following season it produced fruit as in Europe. Thus in popular but intelligible language, which may very legitimately be borrowed from Ireland, the Vine was successfully wintered, and wintered in the hottest months of the year.

Alford Rectory.

GEORGE JEANS.

THE HORTICULTURAL SOCIETY AND FLORISTS' FLOWERS.

I READ that on June 11th, 1862, the following prize was given to Mr. H. Norman, Plumstead, for twenty-four varieties of Pinks—10s. ! and that on May 21st, the same gentleman was lucky enough to get £2 for twenty-four Tulip blooms, and Mr. C. Turner 30s. for the like number!! Can you inform

me, or your readers generally, whether this is all that is to be done for florists' flowers by the Royal Horticultural Society, after all the fine promises of patronage made to us a year or two back?—A FLORIST OF THE OLD SCHOOL.

YOURS is a florists' periodical, and it has always been appreciated for the soundness and independence of its views; I, therefore, ask you the question, Whether or not you consider what the Royal Horticultural Society is doing for florists' flowers is anything like a fulfilment of the promises made to the floral world when it started on its new course? It was said both the Pomological and Floricultural Societies would be superseded by the full recognition of meritorious garden flowers, fruits, and vegetables by the Committees of fruits and flowers formed under the auspices of the Society. I have no fault to find with these Committees, which I hear on all sides are well managed; but I think the now great and powerful Society might acknowledge, in a more suitable manner, florists' flowers at their exhibitions, than by merely throwing them the crumbs left after the great aristocratic classes have been satiated to repletion. I confess I do not know why, but somehow or other florists' flowers never seemed to me to like Chiswick, and, for aught I know, they may feel the same sort of thing at Kensington. I have a suspicion that their owners share in this feeling. When I used to attend Chiswick regularly as an exhibitor in this class, myself and others had a kind of fidgetty feel about us; we kept an involuntary look over our shoulders, as if we felt the chances strong for our being handed over to the police for an unwarrantable innovation where we had no business; like an unlucky wight whom we once saw caught trying to get into the gardens with a bundle of Sweet Williams under his arm! and no great sin either, for there has been much worse rubbish admitted since then and staged, aye, and prized too, than our humble friends Sweet Williams.

I remember when the now great Society were nigh about bankrupt, and casting about for help most piteously, some one taunted them with having, among their other shortcomings, given the cold shoulder to florists; to which one of their officers replied in a repentant strain, "True, we did it; but lend us a hand now, and you will find us wiser than of yore, and will see how liberally you will be treated." But this promise only reminds us of the old distich—

"The devil was sick; the devil a saint would be.
The devil got well; the devil a saint was he!"

And so with the Society. "They say we are all right now, so don't bother us with your Pinks or Picotees; for if we do for appearance sake give you a few prizes by way of a sop, don't deceive yourselves, we don't want you; if you like to take what we offer, well and good, let that pass; but if you begin, as of old, to grumble, you must go elsewhere;" and so, as the Scotch reviewer said of Byron's poem, "We must take what we can get and be thankful, considering from whence it comes."

But I am not thankful, and out with it, and wish you to tell the world that I and many others are not satisfied with present proceedings. I wish to respect every florist, and every kind of florists' flowers, supposing always there is fair play between us; but, if not, why, then, you may as well know that I don't care a fig for Orchids, or Mosses, or Cordylines, or Anæctochilus (how can one like a plant always poked under a glass, and which mustn't be handled?) or such like things. Perhaps it is because I can't afford to get them, or couldn't grow them if I did; but anyhow I don't begrudge those who have the means to purchase and grow them, if they will let us share with them the honest rewards of skill, anxiety, and cultivation due to us as florists

(I won't say of a humbler class—never, where all are alike the offspring of one great Creator's skill), and as fellow labourers and improvers in the same great field of practical horticulture.

Why, I am told that it is no uncommon thing for one great exhibitor to obtain from £50 to £70 at a single exhibition! Goodness me! only let one £50 be offered for collections and specimens of hardy border flowers, and a reasonable time given to attend to their cultivation, and see what could be produced in this way. And let the Society consider what an impulse this would give to out-door gardening—to gardening which would embellish our cottage homes and rural rides, and to encourage which would be one means of conveying the most innocent recreation to the threshold of every poor man's door. If all comes to all, I again repeat, Let us encourage more freely the classes of hardy florists' flowers, of out-door flowers, of flowers which grow equally well in the cottager's garden, or the weaver's allotment, as in the gardens of the wealthy; and, somehow or other, I must press upon you to take up this subject strongly, as you have ever done what you have undertaken; and I doubt not we shall, in some quarter or other, get due recognition for the classes now too much neglected by the great Society, or a popular florists' flower society must be started.—FLORIST.

[We publish the above two letters, received from practical florists, and we are bound to admit that there is much of truth in what, more especially, our last correspondent says on the subject. We regret to say also, that the above are only a few of the complaints which we have received on similar subjects. Altogether matters appear to be again assuming the same unsatisfactory aspect which clung so long round the neck of the Chiswick dynasty, until it finally collapsed under the weight, and was only resuscitated by circumstances and means which will appear to have been very adventitious, unless they lead to the full development of horticulture in every point of view. The Horticultural régime has never been a popular one, nor yet ultimately fortunate. In the early stage of the Society there was nothing but mismanagement, which brought on a great disruption and change; but which, unfortunately, improved nothing, and the Society fell through sheer incapacity to fulfil its duties. There is a great chance for it now; but not even the greatness of the opportunity, nor the rank and number of its patrons will ultimately save it, if its proceedings are not characterised by liberality in the right direction, and a wise economy in others. At the very outset the Council, unfortunately, broke faith with the public in respect to the design for the formation of the Gardens at Kensington, which was to have been submitted to a competitive trial; and there appeared throughout the earlier stages of the Society's connection with the Royal Commissioners a something which, though it would probably be unfair to condemn as truckling to that body, yet which did not exhibit that independence of action which would have been more dignified in the Council to have assumed. We trust we shall see for the future more gardening management in the operations of the Council, and less of that which we hear frequently characterised by epithets which are far from complimentary.—EDS. F. & P.]

THE ADVANTAGES OF HAVING A PLANT-HOUSE ON A NORTH ASPECT IN THE SUMMER MONTHS.

WHEN the main range of new hothouses was erected here, a space on the back wall was reserved for a plant-house, for retarding or keeping plants longer in flower in warm weather. This house is roofed with glass, and is 76 feet in length, 14 feet in breadth, and 18 feet in height, quite open to the north in summer, and is not artificially heated. I find the Sikkim and Bhotan Rhododendrons are quite at home in it, and are beginning to flower plentifully this year for the first time. In the beginning of April several of the Bhotan seedlings showed their flower-buds, and I then introduced them into a warmer house, where they flowered beautifully; and one variety, *Jenkinsii*, is a great acquisition, the flowers being as large as *Edgeworthii*, of a better shape, and as sweet scented. The Sikkim Rhododendrons in this house flower well every year, the list comprising *Dalhousianum*, *Nuttalli*, *Edgeworthi*, *Maddeni*,

Virgatum, and Wightii. Not flowered yet: Fulgens, Campyllocarpum, Hodgsoni, Campbells, Thompsoni, Aucklandi, Falconeri, and Argenteum. The Bhotan Rhododendrons are very straggling growers, and will never make good specimens; here they are grown as standards, and their long straggling shoots tied down. The new Hybrids between them and ciliatum will be everything that can be desired as to habit, and for fine showy trusses of sweet-scented flowers.

I find great advantages from this house in hardening-off Camellias, Epacris, and Heaths, after making their young growths when done flowering. These plants in the open, in wet summers, often get sodden at the roots, and suffer in consequence; but when kept sheltered in a house with a north aspect, they get plenty of air and shade, and never suffer from too much wet unless neglected.

Fuchsias, Liliums, and other greenhouse plants that want shading in the summer months, thrive well in this structure; likewise stove plants, to keep them longer in bloom, or retard them, as the case may be.

All plants suffering from insects or mildew are brought into this back house, as one end is used as a hospital to give room for dressing them, or for fumigation.

WILLIAM TILLERY.

MR. JOHN EDWARDS.

"Friend after friend departs:
Who hath not lost a friend?
There is no union here of hearts
Which hath not here an end."

It has been well said by a wise preacher that "there is never a time when we have not some death before our eyes, either of some public personage, some private friend, neighbour, or acquaintance, to warn us of our own mortality;" and this impressive truth has been of late especially applicable to the floral brotherhood in general, and to us of the FLORIST AND POMOLOGIST in particular.

Hardly twelve years have passed since six of the principal supporters of this periodical met together in the home of the Editor, soon after the first Number was issued; and now two only (but these, happily, the two who have probably done more than any two men extant for the advancement of their art*) are living. Mr. Fox (the artist), Mr. Groom, Mr. Beck, and Mr. Edwards have fulfilled the inevitable destiny of "man that is born of woman," "he cometh up, and is cut down *like a flower*."

Mr. John Edwards, who died on the 26th of May last, commenced his career as a florist with the Pansy and the Pink, gradually extending his attentions—for the love of one flower teaches us the love of all, and he is no more a florist who cultivates but one than that man is an astronomer who can distinguish but a single star—to the Tulip, the Carnation, the Auricula, the Dahlia, and the Rose, all of which he grew with a most careful skill, and successfully exhibited for many years at the South London Floricultural and other Societies.

He had entered upon a more extended field in the cultivation of Orchids, stove and greenhouse plants, when that invader, who has laid waste so many fair garden grounds—the architect, approached him, and the land on which he lived was sold for building purposes.

The loss of his garden induced him, unfortunately for the gardening public, to discontinue his "Garden Almanac," which he established in 1853—the first

* Mr. Rivers, of Sawbridgeworth, and Mr. Charles Turner, of Slough.

trade directory in which full credit could be placed, and which was received in all quarters, so long as it was published, as an excellent authority and guide. Whatever he wrote upon floral subjects was clever, practical, and trustworthy.

In establishing the National Floricultural Society he took a chief part and interest, conducting for some time as Secretary the operations of an institution which was of great service to florists, and which laid down those rules and laws of taste on which novelties and seedlings are still judged. Indeed, there were few to compete with him in his quick and sure discernment as to the relative merits or the individual excellence of flowers; and his adjudications at our principal exhibitions ever proved him to be as inflexible in asserting, as he was wise in determining, his awards. He gave sentence strictly from the evidence, whatever special pleading might say. For the arrangement and management of a flower show he had a special aptitude, and that union of good humour with firmness which so soon produces order and peace.

We shall see him no more in these happy gatherings, among the flowers he loved so well, but we will not forget the services which he rendered, nor forego the sufferer's hope.—S. R. H.

SUMMER DOYENNE' PEAR.

WITH AN ILLUSTRATION.

SYNONYMS.—*Doyenné d'été; Doyenné de Juillet; Duchesse de Berri d'été; St. Michel d'été; Roi Jolimont; Jolimont; Jolivet; Brüsseler Somer-Dechantsbirne; Julius Dechantsbirne.*

THIS is the earliest Pear known. I have had it quite ripe by the 20th of July, and if not gathered before the end of the month, I have found the crop lying on the ground. Although so early, it is not one of those the flesh of which is dry and mealy with a high musky flavour, but it is very juicy and melting, with a flavour not unlike that of the Jargonelle.

The Summer Doyenné was raised by Dr. Van Mons, and the earliest notice we have of it is the mere mention of the name in his catalogue of 1823, in which it stands No. 1 in the second series. He there states by the words "par nous" which follow the name, that it was a seedling of his own. Doyenné d'été is, however, an unfortunate name, and may lead to confusion; for it is a synonyme of Franc Real d'Été of the French, and the Runde Mundnetzbirne of the Germans. To avoid mistakes on the part of English growers I have here made use of Summer Doyenné, which is the name I have adopted in my *Fruit Manual*.

The fruit is small, and Doyenné-shaped, even and regularly formed. The skin is quite smooth, and when ready for use is of a yellow green in the shade, and dull red next the sun; but when it becomes quite ripe, and is then past its best, the green becomes of a deep yellow colour, and the red brilliant crimson. Eye with short ovate segments, slightly open, placed in a very shallow depression. Stalk an inch long, stout; thick and fleshy at its union with the fruit. Flesh tender, very juicy, sweet, and richly flavoured for a summer Pear.

It ripens in the middle and end of July, and requires to be gathered before it assumes its yellow colour. The condition in which it is best is when the colour is just changing to a yellowish tinge.

The tree is a very excellent bearer, succeeds well on the quince, and forms a handsome pyramid.—H.



Doyenné d'Été Pear.

C. Gabor. Zmco. 3^d Skinner St.

THE METROPOLITAN EXHIBITIONS.

CRYSTAL PALACE, *May 24th*.—This was to a very great extent a reproduction of the Royal Horticultural Society's Show on the 21st, excepting that it was a different locality, and the arrangements altogether diverse from that at Kensington. From Classes 1 to 18, it was like an *encore* of the performance of three days previously, the same elements composed the choir. Stove and greenhouse, fine-foliaged and variegated plants, Orchids, Azaleas, Cape Heaths, Cacti, Roses, and Pelargoniums were but the same *artistes*, in exactly identical positions, but on another orchestra. A slight gap was caused by the absence of the fine Azaleas and Orchids of Messrs. Veitch & Son. The arrangement of the whole was extremely good, especially in the centre transept, and Mr. Houghton deserves the highest praise for the admirable manner in which he had disposed his forces here. The corners formed by the intersection of the nave with the centre transept, had, as occupants, huge piles of Azaleas, then banks of ornamental plants reaching to the end of the transept, losing themselves in two mighty semicircular mounds of stove and greenhouse plants, issuing from the summits of which were appropriate groups of statuary. Between these towering horticultural Rameses, was a small group of plants furnished by the Company, arranged with vases in a very pleasing manner. Stretching along the nave were lines of Orchids, Roses, Azaleas, Calceolarias, Cinerarias, Pelargoniums, and Cape Heaths, intersected by the more sober drapery of the ornamental-foliaged plants that here and there formed an occasional link in the gilded chains that lined the avenue. The fruit, together with a majority of the new plants, occupied stages in the centre of the nave. Class XI., for eight new varieties of Greenhouse Azaleas, was an object of considerable interest during the day. Mr. Turner, Slough, was first and third with small but well-flowered plants of fine quality. Messrs. Ivery & Son, Dorking, being second and fourth with larger plants, but wanting that fulness and quality in the flowers that distinguished Mr. Turner's best eight. They were *Comte de Hainault*, a very large salmon rose, with crimson spots on the upper segment; *Milioni*, pale rose, with scarlet marking on the upper segment; *Sir H. Havelock*, a bright pale scarlet; *Perfection*, pale rose, spotted and suffused with carmine; *Duc de Brabant*, salmon pink, with crimson marking on the upper segment; *Mars*, bright fiery scarlet; *Etoile du Gand* and *Salmonacea alba curta*, two handsome variegated varieties. Messrs. Ivery & Son had *Rubens*, a large fiery scarlet; *Rosea alba*, rose edged with white, and marked into purple on the upper segment; *Etoile du Gand*, *Variegata superba*, and *Tricolor*, variegated varieties; *Flower of the Day* and *Gloire de Belgique*, having white flowers striped with carmine; and *Leviathan*, a large double white. Mr. C. Turner, was once more in the van with twelve Pelargoniums; and Messrs. Dobson & Son, second, with the same varieties as at South Kensington. Mr. T. Bailey, Amersham, was first in the *Amateurs' Class*; and Mr. Shrimpton second. With six Fancies, Mr. Turner regained his lost laurels at South Kensington; Mr. Bailey, who was first there, subsiding to second place. The former had *Claudiana*, *Roi des Fantaisies*, *Madame Rougière*, *Aeme*, *Lady Craven*, and *Modestum*. An infusion of new blood had strengthened Mr. Turner; while Mr. Bailey had to rely on the same plants. Messrs. F. & A. Smith were first with six Cinerarias—viz., *David*, *Criterion*, *Géant des Batailles*, *Fairy Queen*, *Phœbe*, and *Miss Smith*. Second, Messrs. Dobson & Son, with *Brilliant*, *Duchess of Sutherland*, *Lady Seymour*, *Perfection*, *Queen Victoria*, and *Masterpiece*. A few seedling Pelargoniums were staged. The following from Mr. Turner were full of promise:—*Royal Albert*; *Loveliness*, bluish lower petals, with dark blotch on upper division, and white margin; *Tycoon*, a rich dark variety with white throat. Fancies:—*Bella*, deep rose, top petals margined with white, bluish lower petals spotted and stained with rose; *Godfrey Turner*, crimson, margined with rose; and *Butterfly*, a very pleasing bluish, spotted and stained with rose. Messrs. Dobson & Son, had *Startler*, rich fiery scarlet, with very dark top petals margined with fiery ring. Mr. Wiggins, gardener to W. Beck, Esq., had *Pelides*, salmon rose, with deep blotch on top petals, a finely formed and very free variety; *Canopus*, deep rose, dark blotch on upper petals, white centre, a very pleasing flower of fine form. A legion of new plants appeared in the class devoted to them. Mr. B. S. Williams had, among others, his new variegated bedding plant, *Scrophularia nodosa variegata*; *Azalea elegantissima*, noticed at South Kensington; a fine *Cibotium* princeps; *Phalenopsis Schilleriana*; *Pteris serrulata angusta*, a very handsome serrated Fern, and a light-coloured *Angulosa* species. Mr. W. Bull, of Chelsea, had *Yucca alba spica*, a long narrow-leaved variety with white threads; an *Aracaria* species from Moreton Bay; *Yucca Stokesi*, edged with white; *Agave americana*; *Serissa foetida marginata*, a very pretty ornamental greenhouse shrub; *Cyanophyllum speciosum*; some handsome *Dracænas*, &c. Mr. Standish had a group of new Japan plants; and rare plants were also furnished by Messrs. J. & C. Lee, Hammersmith; Jackson & Son, Kingston; G. H. Bunney, of Blackheath, &c. Cut Roses came from Messrs. Lane & Son, and W. Paul. Pansies from Messrs. James, Shenton, and others; and some cut Tulips were also staged. Some fine Pines were produced. The best was a *Queen*, from Mr. J. Barnes, Budleigh Salterton, Exeter. Second, Mr. T. Bailey, with a *Providence*; and equal third, Mr. Barnes,

with a Smooth Cayenne; and Mr. Drewitt, Denbies, with a Prickly Cayenne. With Black Hamburgs, Mr. A. Henderson, Trentham Gardens, was first with a single dish of Black Grapes; equal second, Messrs. Wortley and M. Henderson, Coleorton Hall; equal third, Messrs. T. Frost and J. Peacock, all with Black Hamburgs. Of White Grapes, Mr. D. Clements, Chase Side, East Barnet, was first with a dish of Stilwell's Sweetwater. Second, Mr. Frogley, with White Muscadine. Third, Mr. Standish, with White Frontignac. Several dishes staged were disqualified because unripe. With a basket of Grapes, 10 lbs. weight, Mr. M. Henderson was first; Mr. T. Frost second; and equal third, Mr. Baker, gardener to J. Harrison, Esq., Leicester; and Mr. J. Frogley, Hoddesdon, all with Black Hamburgs. With single dish of Peaches, Mr. Baker was first; and Mr. A. Henderson, second; both with Royal George. With dish of Nectarines, Mr. Peacock was first; and Mr. A. Henderson, second; each with Violette Hâtive. In the Class for Green-fleshed Melons, Mr. A. Henderson was first with Trentham Hybrid. Second, Mr. Pottle, gardener to B. D. Colvin, Esq., Woodbridge, with a Hybrid variety. Of Scarlet-flesh Melons, Mr. J. Barnes had Orion, which was awarded a first prize. Mr. Cross, gardener to Lord Ashburton, was first with Brown Turkey Figs. Second, Mr. Pottle, with Brown Ischia. With dishes of Cherries, Mr. A. Henderson carried off the three prizes with Elton, and two lots of Black Circassian. Strawberries came only from Mr. R. Smith, Twickenham. He had a single dish of British Queen; and in the class for three kinds, British Queen, Empress Eugénie, and Sir C. Napier. Three lots in pots were produced, all Sir C. Napier. Mr. Thomas Reed, of Sydenham, was first; Mr. R. Smith, second; and third, Mr. W. Kaile. Six dishes of Apples, from R. H. Bettridge, Esq., Abingdon, had an extra prize awarded them. They were Sack, French Crab, Norfolk White Pippin, Hanwell Souring, Wellington, and Sturmer Pippin. A like award was made, to Mr. Young, gardener to W. H. Stone, Esq., Havant, for fruit of Citron paradisa, from Asia, and also for a dish of Mangoes. A very attractive Exhibition added to the announcement that the opening ceremonial music of the International Exhibition would be performed, attracted a very large company, enjoyments that the fineness of the weather greatly enhanced.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, *May 28th*.—There seemed to be a delightful freshness about this Exhibition, though so many things that were at the other Exhibitions were also here. Orchids appear to be in finest bloom. The Azaleas were just at their best. Cape Heaths were very full of flower, and though they found a lodgment in some of the darker recesses of the tent, their presence was felt and acknowledged. Stove and greenhouse plants looked as if the trip to Sydenham on the previous Saturday had increased their gaiety and vivacity; and the Pelargoniums were the finest show of this flower we have seen. Their attractiveness seemed to culminate here. Messrs. May, Whitbread, and B. Peed, were, relatively, first, second, and third, with sixteen stove and greenhouse plants. Messrs. Milford, Baker, and Penny, with twenty Orchids. With twelve stove and greenhouse plants, Messrs. Fraser, Jackson & Sons, and Cutbush, of Barnet. With ten plants, Messrs. Chilman, Green, and Carson; and with six, Messrs. Page and Tegg. With twelve Orchids, Messrs. Page, B. Peed, and Chilman were the prizeholders. With ten varieties, Mr. B. S. Williams, and S. Woolley. Messrs. T. Jackson & Son were first with ten Cape Heaths; Mr. O. Rhodes second. With eight plants, Mr. Peed was first; and Mr. T. Page, second. Messrs. Dobson and Son had six nicely-flowered plants of Cinerarias. Mr. Turner had twelve splendid Pelargoniums—viz., Peacock, a dark-spotted kind, and on this occasion of splendid quality; Desdemona, Lord Clyde, Candidate, Nestor, Leviathan, Sunset, Etna, Rose Celestial, Empress Eugénie, and Bride. Second, Messrs. Dobson & Son, who had two very showy spotted kinds, William Bull and Macbeth. Mr. Nye, gardener to E. Foster, Esq., Clewer, had ten plants characterised by size, quality and head of flower, and forming a group long to be remembered. His varieties were—Flora, Fairest of the Fair, Sanspareil, literally a sheet of flower; Desdemona, Prince of Wales, Sir C. Campbell, Saracen, Ariel, and Glowworm, a very bright high-coloured variety. Second, Mr. Shrimpton. Mr. Turner was also first with the following six Fancies—Zoe, Arabella Goddard (a beautiful deep rose, white throat and margin, a flower of the most exquisite form), Clemanthe, Lady Craven, Acme, and Celestial. Second, Messrs. Fraser. The Fancies in the Amateurs' were unusually strong, and gave the Judges some work, so remarkably close were some of the groups. Two first prizes were awarded—to Mr. Bousie, gardener to Lord Taunton, Stoke Park, with Evening Star, Carmine-natum, Clemanthe, Celestial, Delicatum, and Crimson Pet; and to Mr. Weir, gardener to Mrs. Hodgson, Hampstead, with Lady H. Campbell, Madame Sontag, Attraction, Delicatum, Celestial, and Acme. Second, Mr. Holland. Two groups of ten Roses in pots, came from Messrs. Lane & Son, and Mr. W. Paul. The former was placed first after the most patient inspection by the Judges. Mr. Paul had finer and fresher blooms, but wanted the head of flower possessed by the plants of his antagonist. Mr. Terry, of Youngsbury, was first with six varieties. A group of new Roses in pots came from Mr. W. Paul. Among these were fine examples of H.P. *Senateur Vaisse*, *Madame Boll*, *Victor Verdier*, *Comtesse de Chabillant*, *Lælia*, *Oriflamme de St. Louis*, *Triomphe des Beaux Arts*, *Comte de Nanteuil*, *Anna*

de Diesbach, Empereur de Maroc, Louis XIV. Noisette, Lamarque. Tea, Madame Damazin, President, Madame Willermoz, Souvenir d'un Ami; and H.C., Charles Lawson. Pansies and Tulips came from several exhibitors. The best of the former were from Messrs. Downie, Laird, & Laing, Forest Hill. In the Classes for new and rare plants, &c., a large number was staged. Foremost was an extremely interesting group of variegated herbaceous plants, from Mr. B. S. Williams. Mr. Turner had a bright Zonale Geranium Nesfield, and a Horse-shoe variety named Morning Star, a pleasing rosy salmon; also, the following seedling Pelargoniums:—Improvement, a bright rosy scarlet, with dark top petals; Royal Albert; Miss Faithful, rose, veined with crimson, dark blotch; A 1; Vivid Scarlet, dark top petals, margined with fiery scarlet; Sportsman, a handsome, rich, dark-spotted kind; Bouquet, Alice, Loveliness, Lilly Franklin, all pleasing light-spotted varieties; Lady Towers, bright rose, white throat and margin, a flower of fine form; and Bella, Butterfly, and Miss-in-her-Teens, Fancy kinds, shades of rose and very pretty. Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, had Oriana, delicate pink, stained with carmine, dark top petals margined with fiery scarlet, fine form and very novel; Agamemnon, a large, deep, salmon rose, white throat, and dark top petals; Splendens, bright rosy scarlet; Eurydice, an exquisite light flower, of fine form, dark top petals margined with fiery scarlet and white; Ardens, rich deep scarlet, veined with crimson, dark blotch, a fine flower of good form; Regina formosa, a finely formed salmon rose variety. Mr. Nye had Improvement (Foster), lilac rose, lightly veined with crimson, dark top petals margined with fiery scarlet; Royalty, deep salmon rose veined with crimson, white throat, a large flower of fine form and substance; and Conflagration, a deep glowing scarlet, very showy. Mr. B. S. Williams had Petunia rosa belle forme, crimson magenta with white throat; and Horseshoe Geranium Conqueror of Europe, a light salmon rose. Messrs. Dobson & Son had Pelargonium Startler, a showy fiery scarlet, veined with crimson; and Messrs. J. & J. Fraser had International, deep rose, with crimson spots and veins, dark top petals, a large, pleasing flower. Messrs. E. G. Henderson & Son had Aucuba himalaica, with long, bright green serrated foliage, producing clusters of deep orange fruit; some golden-foliaged Horseshoe Geraniums, and Queen's Favourite, Mrs. Pollock, and Sunset, three handsome variegated kinds. Messrs. Veitch & Son, Standish, B. S. Williams, Bull, T. Jackson & Sons, &c., had groups of new and ornamental-foliaged plants of great interest, adequate descriptions of which would require the whole of the present Number.

ROYAL HORTICULTURAL SOCIETY, June 11.—This Exhibition was held in the conservatory and the arcades. A heavy gale of wind broke over here the previous evening but one, and appeared to concentrate its fury on the large tent of the Society, and those covering the Rhododendrons from Messrs. Waterer & Godfrey, Knaphill. The former was rendered untenable for the purposes of the Exhibition, and it was sad to witness the destruction caused by the fall of the latter. About one-half of the plants were comparatively uninjured; many of them were magnificent examples, and ranged in colours from the most delicate blush to dark crimson. They were like immense bouquets, and were as thickly studded with flowers as the Azaleas in the conservatory. The great centre of attraction in this Exhibition, especially for the ladies, were the groups of fruit and flowers, for which Sir W. C. Dilke had offered special prizes. Some 300 feet of tables were occupied, but so crowded was the arcade, that but a peep could be obtained of them. There were a great variety of designs, but the palm seemed to be awarded to the most elegant and charming simplicity; but the ordinary rules of judging cannot apply to these. Some of the groups looked as if they had been intended for triumphal arches by the fair architects, so large were their proportions in comparison with those contiguous to them. On the opposite side of the grounds, displayed under a corresponding arcade, were garden implements, heating apparatus, wirework, trellises, and baskets, garden pottery, labels, tiles for garden edging, &c., in too great variety to be detailed. Some very tasteful flower-pot covers for drawing-room decoration, from Messrs. Barr & Sugden, Covent Garden, were highly commended by the Judges, as were many other articles exhibited. Some very nice fruit was staged, but the quantity was limited. Of Pine Apples, Mr. Bailey, of Shardeloes, had a Prickly Cayenne. Mr. Floud, gardener to R. Fothergill, Esq., Aberdare, had a fine Queen that weighed 5 lbs. 2 oz. Mr. Barnes, of Bicton, was second. Fine Black Hamburgh Grapes were shown by Mr. Henderson, Trentham Gardens; also by Mr. D. Clement, of Barnet; and Mr. Wortley, of Norwood. The majority of the Muscat Grapes were unripe; Mr. Horwood, gardener to W. Turnbull, Esq., Bromley, was first with three bunches; second, Mr. Standish, Bagshot. Some good fruit of Peaches, Nectarines, Cherries, and Figs were staged, of well-known varieties. Mr. Smith, Twickenham, had three dishes of Sir C. Napier, British Queen, and Empress Eugénie Strawberries—the latter a large and very high-coloured variety; Mr. Widdowson, Chorleywood House, was second with Sir Harry, Sir C. Napier, and Crimson Queen. Mr. Smith, of Sion House, had admirable Grapes in pots, so had Mr. Hutt, gardener to Miss B. Coutts, Highgate; and some considerable interest attached to some small bunches of Black Grapes, from Dr. Trouncer, ripened in a glass structure on the top of a house, in

Mount Street, Berkeley Square. On this occasion Mr. May had to succumb to Mr. Whitbread, in the Class for fifteen Stove and Greenhouse Plants; Mr. B. Peed being third. In the Nurserymen's Class for twelve varieties, Messrs. J. & J. Fraser were first; Mr. O. Rhodes second; and Mr. Cutbush, of Barnet, third. With nine varieties, Mr. Chilman was first, Mr. Green second, and Mr. Kaile, of Ripley, third. With six varieties the competition was very close, Mr. A. Ingram, gardener to J. J. Blandy, Esq., Reading, and Mr. Page, gardener to W. Leaf, Esq., Streatham, were equal first; and Mr. J. Tegg, Roehampton, second. It was the old acquaintances of former occasions—*Polygalas*, *Vincas*, some gorgeous *Allamandas*, two or three fine examples of *Pleroma elegans*, *Stephanotis floribunda*, *Ixoras*, *Azaleas*, *Erica Cavendishi*, some fine *Pimeleas*, and, in one instance, a well-grown and flowered plant of *Leptodactylon californicum*. Orchids were in good condition, and are noticed in the report of the Regent's Park Exhibition of a later date. A very fine collection of handsome-foliaged plants came from Mr. Hamilton, Arle Court Gardens, Cheltenham; Mr. Smith, Sion House; Mr. Hutt, and Messrs. T. Jackson & Son also furnished the same. Mr. Whitbread, Dartford, was first in the Amateurs' Class for nine *Azaleas*; Mr. Turner, Slough, in that for Nurserymen; Mr. May, and Messrs. Veitch & Son, were second. Composed of varieties that have appeared before, but not near so full of flowers. In the class for six new varieties, Messrs. Ivery & Son had *Variegata superba* and *Etoile du Gand*, variegated kinds; *Harlequin* and *Flower of the Day*, whites, striped with carmine; *Kinghorni*, a superb salmon rose, spotted with carmine on the upper segment; and *Leopold the First*, a large semi-double rosy pink. Mr. Turner, who was first, had *Chameleon*, producing pure white, striped, bright rosy scarlet, and variegated flowers; *Magnet*, a glowing salmon rose; *Kinghorni*, *Etoile du Gand*, much finer than Messrs. Ivery's; *Président de Cloyes*, a handsome variegated kind; and *Comte de Hainault*. Messrs. Lane & Son, and W. Paul, had *Roses* in pots, but not so good as formerly. *Capo Heaths* came from the same exhibitors as before. Mr. B. S. Williams had a collection of *Exotic Ferns*; and collections of *Anectochils* came from Messrs. Harbott, Veitch & Son, B. S. Williams, and Ingram. Messrs. Turner, Dobson, and Fraser were respectively first, second, and third, with twelve *Pelargoniums*. Mr. T. Bailey, of Shardeloes, with nine varieties; the second and third prizes being withheld. With six *Fancy kinds*, Mr. Turner was first, Messrs. Dobson & Son second, and Mr. T. Bailey third. With nine *Spotted or French kinds*, Mr. Turner was first with *Osiris*, Mr. Marnock, *Conspicuum*, *Guillaume Severyns*, *Bertie*, *Bracelet*, *Beadsman*, and *Rembrandt*. Messrs. Dobson & Son were second, with Mr. Hoyle, *Peacock*, Wm. Bull, *Macbeth*, *Sanspareil*, *Madame Furtado*, *Scaramouch*, *Distinction*, and *Conspicuum*. A very large number of seedling florists' flowers and new plants were produced. Of seedling *Pelargoniums*, Mr. Wiggins had *Canopus*, *Ardens*, *Agamemnon*; *Mallbrook*, a very novel, salmon, rose flower; *Kosciucian*, a bright showy crimson; *Eurydice*, *Regina Formosa*; *Bellatrix*, deep salmon rose, a very strong exhibition flower; and *Caliban*, a very fine crimson-spotted variety. Mr. Turner had *Conflagration*, a very showy vivid scarlet; *Lord Palmerston*, a leviathan flower, but not so deep coloured; *Pericles*, a carmine streaked blush; and *Beacon*, deep rose suffused with purple, dark top petals, and broad fiery margin. Mr. Macintosh, of Hammersmith, had a vigorous-growing yet dwarf and compact *Scarlet Geranium*, *Adeleine Patti*, with vivid orange scarlet flowers, good truss and fine form, and to all appearance well adapted for pot-culture. Mr. Bousie, of Stoke Park, and Mr. Burley, Limpsfield, had groups of showy *Calceolarias*; Mr. Tyso, Wallingford, a collection of *Ranunculuses*; and there were also some beautiful seedling *Rhododendrons* from Mr. Noble, of Bagshot. Messrs. Veitch & Son, Bull, Standish, &c., furnished groups of new plants; from the former was a very attractive *Nolana*, called *lanceolata*, having large deep blue flowers, with white throat; and three pans of *Mimulus cupreus*, bright orange scarlet, very dwarf and hardy, from Chili. The conservatory contained a very great novelty—a basket of blossoms of *Cheirostemon platanoides*, the Mexican "Hand-plant," so called because its great green cup-shaped flowers produced from their centre what seems to be a gory arm and hand, out of the palm of which protrudes a crimson stiletto. It is to be feared that the arcades will never satisfactorily answer for the purpose of exhibition, unless the weather is very warm and the atmosphere serene; or else unless the arches can be closed when required with some light-admitting agent that will exclude the cold blasts that worked sad havoc among some of the stove plants on this occasion, while the older flowers of the *Pelargoniums* were freely scattered about. Even in the conservatory, faultless as it appeared in regard to the arrangement, and extremely beautiful in its effect—even here the height of the temperature seemed to be telling on many of the subjects. At any rate it was a fine show, and drew together a large assembly.

ROYAL BOTANIC SOCIETY, *June 18*.—This was another of those fine exhibitions that are inalienable from the Regent's Park. The weather was good excepting a shower towards the close of the day, and the company very large. Stove and greenhouse plants were identical with those at South Kensington. Mr. Whitbread maintained his ascendancy over Mr. May with sixteen varieties; and Messrs. Fraser, and Cutbush, of Barnet, were first and second

with twelve varieties. Mr. J. Green, gardener to Sir E. Antrobus, had the best ten varieties; and Mr. T. Page, of Streatham, the best six varieties. Mr. Chilman was second to Mr. Green; and Mr. Philpott, Stamford Hill, to Mr. Page. Cape Heaths were still showy, though not so gay as at the previous meeting here. Mr. O. Rhodes, Sydenham, and Mr. B. Peed were severally first with ten and eight varieties; Messrs. T. Jackson & Son and Mr. Page coming next in order of merit. Mr. Chilman was first with six varieties; and Mr. Wheeler, gardener to J. Philpot, Esq., second. Mr. Turner, Slough, again took the lead with six Azaleas; Mr. May being second. Orchids were in admirable condition, and contributed most effectually to the attractiveness of the Show. Mr. George Baker, gardener to A. Bassett, Esq., Stamford Hill, had a grand collection of twenty varieties, including *Cattleya Mossiae*, with a splendid head of flower; *Cypripedium barbatum nigrum*, with nineteen fine blooms; *Dendrobium formosum*, *Cattleya speciosissima*, &c. Mr. Milford, gardener to E. McMorland, Esq., Haverstock Hill, was second, and had fine examples of *Aerides odorata superba*, *Lobelia* and *crispa*; *Cattleya superba*, very handsome; and *C. speciosa*, from Brazil; and *Brassavola Digbyana*, from Honduras, said by Mr. Milford to have flowered but twice in the past ten years. Third, Mr. B. Peed. With twelve varieties, Mr. C. Penny, gardener to H. H. Gibbs, Esq., was first; and Mr. Page second. In the Nurseryman's Class for ten varieties, Mr. B. S. Williams was first with a magnificent specimen of *Orchis foliosa*, having a profusion of spikes of lilac purple flowers; a finely flowered *Cattleya Mossiae*, *Aerides odorata purpurascens*, &c. Second, Messrs. T. Jackson & Son, who had very fine *Lælia purpurata*, *Cattleya Wagneri*, and *Phaius Wallichii*. Third, Mr. S. Woolley, Cheshunt, who had a beautifully marked *Cypripedium barbatum Veitchii*, from India. With six varieties, Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, was first; and Mr. Smith, Sion House Gardens, second. Mr. Hutt, gardener to Miss B. Coutts, Highgate, and Mr. B. S. Williams had collections of Exotic and British Ferns, which, together with the fine-foliaged plants, occupied the shady recesses of the tent. Mr. Burley, of Limpsfield, and Mr. James of Isleworth, were equal with groups of six Calceolarias—the former having very showy half-shrubby kinds. Mr. H. Cannell, gardener to G. Jennings, Esq., Clapham, was first with six Fuchsias extremely well flowered; the varieties were Little Bopeep, Catherine Hayes, and Sir C. Campbell double dark; Rose of Castille and Pearl of England, light; and Madame Cornelissen, a free-flowering white corollaed variety. Second, Mr. Cross, St. John's Lodge, with British Sailor and Souvenir de Chiswick, dark; Queen of Hanover, Rose of Castille, and Fair Oriana, light; and Princess of Prussia, with white corolla. These were larger plants, but not sufficiently advanced in bloom. Mr. Turner was in the van with twelve fine Pelargoniums, as usual. They were Glowworm, Candidate, Sir C. Campbell, Lucifer, Lady Canning, Prince of Wales, Lord Clyde, Fairest of the Fair, Desdemona, Viola, Prince of Prussia (Story's), and Braclet, a showy spotted kind. Second, Messrs. Dobson, who had, differing from those exhibited by them before, Bacchus, Roseleaf (a very showy bright rose), and Eclipse. Mr. T. Bailey, Amersham, had a walk over with ten plants—viz., Viola, Glowworm, Carlos, Rosa Bonheur, Sanspareil, Bianca, Lord Clyde, Duke of Cambridge, Ariel, and another. Mr. Turner was first in the Nurserymen's Class; and Messrs. Bailey, and Lamb, gardener to Miss Thackerwaite, Southwell, in the Amateurs' Class with six Fancy Pelargoniums. The best were Claudiana, Evening Star, Delicatum, Lady Craven, Modestum, Acme, Celestial, and Bridesmaid, a silvery light-coloured variety. Messrs. Fraser stood next to Mr. Turner, and Mr. J. Emson, Streatham, in the other class. Messrs. Standish, Veitch & Son, Bull, B. S. Williams, and E. G. Henderson & Son had their usual quota of new and rare plants; the latter had a very interesting collection of Ivies, including some variegated kinds; some very dwarf and showy herbaceous Calceolarias, from 18 inches to 2 feet in height, and a few seedling double Petunias; also cut flowers of the handsome *Clianthus Dampieri*. Messrs. A. Henderson & Co., had a collection of Variegated Geraniums, and some free-fruited Gooseberries in pots for orchard-houses, named Khyber Pass; a large batch of seedling florists' flowers were produced. Messrs. Dobson & Son had Geranium Queen of the Whites, a light hybrid forcing kind, very free and showy. Mr. Turner had the following Fancy kinds:—Mrs. Marnock, deep rose, white throat, a finely formed flower of great promise; Miss-in-her-Teens; Godfrey Turner; Mrs. Reynolds Hole, a delicate blush with carmine spots, very free, but wanting form; and Helen Beck, a large deep rose with white centre, very free. Of large-flowering kinds, Mr. Turner had Landseer, a rich, bright, spotted kind; Monitor, glowing bright rose, dark spots; Merrimac; Royal Albert; Conflagration; Royalty; International; Novelty, lilac, with crimson veins, and dark top petals; Censor, a bright rosy scarlet, of fine form; Colossus, a large and extremely showy flower, style of Royal Albert; Illuminator, intense glowing scarlet, remarkably striking; and Clio, bright rose, with crimson stains, pure white centre, very showy. From Mr. Wiggins, gardener to W. Beck, Esq., came Fervens, bright orange rose, a very showy flower, of fine form; Agamemnon; Cynosure, soft salmon rose, with large white centre, dark blotch on top petal; Regina Formosa; Oriana; Bellatrix, light carmine with violet shading, very free, showy, and novel; and Fiducia, a very free light kind, of good form. Mr. George Smith, of

Tollington Nursery, Islington, had a fine double Fuchsia, Universal, a decided improvement in point of habit. Mr. J. Watson, St. Albans, had a very dwarf yellow Calceolaria Tom Thumb 6 to 8 inches in height, and very free. Evidently a good bedding kind. Messrs. Lane & Son had a collection of ten Roses in pots. Mr. W. Paul, Waltham Cross, was equal first with Mr. Mitchell, of Maresfield, with boxes of fifty cut Roses, Mr. E. P. Francis being second. With twenty-five varieties, Miss Crawshaw, Reading, was first, and J. Hollingworth, Esq., Maidstone, second. With twenty-four varieties, Mr. Turner was first, and Mr. E. P. Francis second. The newer kinds were Catherine Guillot, Boule d'Or, Victor Verdier, Triomphe d'Alençon, President, Beauty of Waltham, Madame Boll, Duc de Magenta, Sénateur Vaisse, Madame Furtado, Gloire de Santenay, Madame Van Geert, Duc de Cases, Souvenir d'Elise, Louis XIV., and Baronne de Wassana, a fine Moss. Mr. Turner had a splendid collection of Pinks, including some fine seedlings. Messrs. Downie, Laird, & Laing, Edinburgh, had stands of English and Belgian Pansies. Mr. Shenton, of Hendon, also had fine blooms of the former. Mr. C. J. Perry, of Birmingham, was first with a stand of twenty-four Verbenas, chiefly his own raising, and of first-class merit. They were Lord Elgin, Countess of Bradford, Emperor, Blue Beauty, Loveliness, Venus, Mrs. Moore, Spark (a bright orange scarlet), Reine des Amazons, a few other new kinds, and seedlings of promise. Messrs. Downie, Laird, & Laing had spikes of Delphinium bicolor grandiflora, deep blue, with conspicuous white and lemon centre. The contributions of fruit were small, but generally good. Fine Providence Pine Apples came from Messrs. Young, of Aberdare; Bailey, of Shardeloes; and Speed, of Maresfield. The fruit of the first-named weighed 10 lbs. 13 ozs. Fine Queens from Messrs. Barnes, Bicton, 5 lbs. 2½ ozs., and 4 lbs. 6 ozs.; Bwyne, Merthyr Tydvil, 3 lbs. 13 ozs. A large number of Melons were staged. Peaches and Nectarines were very fine; the former consisted of Royal George, Bellegarde, Barrington, or Galandine; the latter of Violette Hâtive, Scarlet Elruge, and Roman. Mr. Henderson, Coleorton Hall, was first with Black Hamburg Grapes, finely ripened; Mr. Hill with West's St. Peter's and White Muscadine; and Mr. Standish with Frontignan. Mr. Hill also had Buckland Sweetwater and Black Prince; and Mr. Standish Ingram's Hardy Muscat, a small but very high-coloured fruit. Mr. D. Thomson, Archerfield, had examples of his Early Muscat, said to be much quicker in ripening than the ordinary Muscat; for while a house of the latter was shut up on the 1st of October, from which Grapes were only being cut now; from a house of the Early Muscat, closed on December 14th, eatable Grapes were cut in May. Mr. Turner, Slough, had a box of a new Strawberry, President, gathered from the open ground, a fine high-coloured variety; and Mr. Lydiard, of Bath, also had a dish of his seedling variety Glory of Bath. Some Cherries and Figs were also shown.

Quo.

REVIEWS.

The Fruit Manual: containing the Descriptions and Synonymes of the Fruits and Fruit Trees commonly met with in the Gardens and Orchards of Great Britain, with Selected Lists of those most worthy of Cultivation. By ROBERT HOGG, LL.D., F.L.S. Second Edition. London: Journal of Horticulture and Cottage Gardener Office.

We see this, the only standard work on the subject of fruits, has reached a second edition, which includes all the new varieties of fruits raised since the first edition was published, two years back. If every nurseryman and fruit-grower would take the trouble to have their fruit trees corrected to the nomenclature of the "Fruit Manual," much of the confusion which now exists would be avoided; under any circumstances, buyers of fruit trees should insist on what they purchase being the same as are described in the Manual under the respective names, and buy no other.

The Orchard-house. By T. Rivers. Tenth edition, enlarged, &c. London: Longmans.

It must be near to twenty-five years since Mr. Rivers, of Sawbridgeworth, delighted lovers of gardening by the first, we believe, of his horticultural brochures—the "Rose Amateurs' Guide," which has been followed at intervals by the "Orchard-house," "Miniature Fruit Garden," and some excellent descriptive catalogues. "The Rose Amateur's Guide" has reached a seventh edition; and the subject of our present notice forms the tenth—a pretty conclusive evidence that the author and his subjects are favourites with the public.

It will be almost superfluous on our part to inform our readers that it is to Mr. Rivers we owe the introduction and name of orchard-houses. What though his first attempts were merely glass roofs resting on a framework of rough timber, beech hedges being substituted for brick walls, two great ideas were embodied in their construction—cheapness and adaptability; and however more recent authors may sneer at the Sawbridgeworth hedge-houses, they were the precursors of all that have followed, however much they may have been improved upon, and no one has made greater improvements in their construction than our

author himself. To Mr. Rivers, therefore, belongs the credit of all that pertains to their introduction and history, quite as much as the railway system owes its beginning to George Stephenson, iron and glass architecture to Sir Joseph Paxton, and good farming to Mr. Mechi.

This last edition contains many improvements, and is suggestive, and is written in the same kindly genial spirit which characterises Mr. Rivers' writings. The suggestions as to culture, including the *rationale* of the treatment of orchard-house plants practised at Sawbridgeworth, show very much of philosophical reasoning and an intimate knowledge of the habits of fruit trees, and, for these reasons alone, should be read by every young gardener, who would do well to digest thoroughly all the author advances on the subject.

We do not see why Currants and Raspberries are not worthy a house of this description. Both fruits in March and April would be invaluable for tarts and other culinary purposes, to say nothing about their making a nice addition to the dessert.

THE POTATO.—A question was asked us the other day whether we did not consider that the Potato had regained its original flavour, which, for many years, was deteriorated through the disease. Our opinion coincides with the one given by our friend, that although the haulm is attacked as usual, and, apparently with the same destructive effects, the quality of the tubers has been gradually improving for the last two or three years (at least in this district), and is now as mealy and high-flavoured as we remember them prior to 1845; indeed, with such kinds as the Dalmahoy, Fluke, and Regent, if care is taken to plant early on dry soils and to avoid rank manure, fair crops and good-quality tubers may be obtained; and the Potato remain with us a tolerably certain and paying crop.—G. F.

WHEN TO BUD.—It is an error to suppose budding can only be performed during about three months in the summer season. With fruit trees, for instance, it may be successfully practised even in November. When wall or espalier trees of the Apple, Pear, or Plum, have long, naked branches (and we have seen scores of such trees grubbed up in consequence), they may quickly be clothed with bearing wood by inserting buds rather thickly on them. We have seen one and two-year-old buds of the Pear worked on naked branches, which have borne fruit the following season, which were budded quite late in the autumn. A little warm grafting-wax is brushed over the incision after budding, as I seldom bind the buds.

OXYDISATION OF IRON.—Is it generally known that coal ashes or cinders injure hot-water pipes and iron in general? Having a pipe underneath the ground near a hothouse, my man covered it with coal ashes. As a good nonconductor, in a few months the pipe was almost rusted through. I am told this effect is produced by the sulphur (remaining in the ashes) acting on the iron—it appeared like a case of simple oxydation. The ashes were removed, the pipe buried in clay, and it looks in no worse condition, though several years have elapsed since the change was effected.—J. R. PEARSON, *Chilwell*.

CALENDAR OF OPERATIONS.

CONSERVATORY.

In general, it is not necessary to keep this house very full of plants at this season of the year; a few good specimens, well-arranged, will make sufficient display. By this means the permanent plants will get more air, and the young growths will get properly matured. Keep the plants well supplied with water, and syringe daily. Give abundance of air day and night. The destruction of insects requires unceasing attention. Keep every place as clean and neat as possible.

GREENHOUSES.

Plants out of doors will now require much attention. All, except those in large pots, do best when plunged in coal ashes. In showery weather examine them daily, and see they do not suffer either from too much or from want of water at the roots. In dry, hot weather syringe every afternoon. Plants

under glass can scarcely have too much air now. Shade in very hot weather. Turn the plants round frequently, and keep them properly tied-out and trained. Pick-off all flowers as soon as they begin to die away, and shorten back or prune such plants as need it. Shift at once all plants that want a larger pot.

STOVE.

All the stronger-growing plants, such as Clerodendrons, should now be watered with weak, clear, liquid manure. Keep the atmosphere moist by syringing daily, and throwing down plenty of water on the paths, stages, &c. Shade for a few hours in the middle of the day in very hot, bright weather. Give abundance of air during the day, and a little at night. Plants for flowering during the winter should now be attended to. The following are use-

ful for this purpose:—*Begonias*, *Justicias*, *Poinsettias*, *Euphorbias*, *Gesneras*, &c. Shift them into larger pots as they require them, and keep them in a nice growing atmosphere. Keep down insects.

FLOWER GARDEN.

If proper care and attention have been given to this, it will now be very gay and beautiful. Keep the shoots well pegged down, and let everything be in the most perfect order. Mow the grass frequently, and keep the walks well rolled. Roses will now be beautiful; all decaying flowers must be cut away. This is a good time to bud Roses. Attend regularly to the tying-up of Dahlias and Hollyhocks; also to all tall herbaceous plants, such as *Delphiniums*, *Phloxes*, *Pentstemons*, &c. *Pleasure Grounds*.—This has been a fine season for all newly-transplanted trees. The frequent showers we have had have obviated the necessity of much watering. Trees and shrubs of all kinds are fast recovering from the ill effects of 1860. The principal work here, at present, is to keep everything in proper order.

FORCING.

FRUIT.—*Pine Apples*.—For fruiting plants, the directions given last month must be attended to. Succession plants should now be grown on as rapidly as possible. Ventilate freely during the day. Water liberally all plants that have plenty of roots. Shift such as require it into larger pots. See the bottom heat is steady and regular. Syringe daily, and shut up early in the afternoons. *Vines*.—See directions last month for Vines in early-houses. Grapes that are colouring should now have all the air possible, both by day and night; and should the wet, dull weather of the past month continue, a little fire heat will be necessary. Cold, wet borders, and defective ventilation are the principal causes of mildew, shanking, &c. Keep a moist, growing atmosphere in late-houses, by throwing water frequently on the paths and borders. Water thoroughly the inside borders when they require it. Give abundance of air during the day; always opening the lights early in the morning, and closing them early in the afternoon. *Peaches and Nectarines*.—When the fruit is all gathered in the early-houses, give the trees a good syringing twice daily for a few days to cleanse them of filth and insects. Give abundance of air night and day; spare no care to keep the foliage in a healthy state as long as possible, so that buds may get properly formed and the wood well ripened for another season. Where fruit is ripening and there are late-houses, attend to the directions in last month's Calendar. *Figs*.—Trees that are swelling-off the second crop of fruit must be well watered, and frequently with liquid manure. The syringe should be used freely, and a moist atmosphere kept up by well sprinkling with water, almost constantly, the borders and pathways. When the fruit begins to ripen syringing must cease, a drier atmosphere kept up, and plenty of air must be given. *Cherries*.—Pinch back all shoots not wanted. Keep the leaves clear of insects, and attend well to the watering. *Strawberries*.—Lay at once, in small pots, a sufficient quantity of runners for forcing next season. Those laid last month should be put into the fruiting-pots at once. Use a compost of good strong loam, well enriched with good rotten dung; drain the pots well, and, after they are potted, place them in beds in some situation where they will have full exposure to sun and air, and where they can be properly attended to. They will not require much water until they begin to fill their pot with roots; but they should always, in dry weather, be either syringed or watered with a fine-rose water-pot every evening. Strawberry-forcing is a very simple affair, if the plants are properly prepared. *Cucumbers and Melons*.—Keep Cucumber plants thin of wood and foliage, and free of insects. Keep up a good heat and a moist atmosphere; give abundance of air and water freely. Sow towards the end of the month for a winter crop. Melons that are ripening should have plenty of air, and the atmosphere of the pit should be kept dry. Keep up a good heat to plants that are swelling their fruit; water well when necessary. Do not leave too many fruit to a plant.

Attend to the stopping and regulating of the shoots on the young plants.

HARDY FRUIT.

Peaches, Nectarines, and Apricots.—Pinch-off every shoot not wanted for next season. Tie-in or nail all shoots as they advance. See there are not too many fruit on any of the trees; if there be, take them off at once. If the weather be dry, the trees should have a good syringing two or three times a-week with a barrow engine. Remove all foreright shoots off Pears, Plums, and Cherries, and nail-in leading shoots. See they are free of insects. Cover Cherry trees with nets to protect them from birds. Gooseberry and Currant bushes should be gone over, and the greater part of the young wood cut away; this not only lets more air and sun to the fruit, but also benefits the wood and buds for next year. Raspberry canes should be well thinned-out.

KITCHEN GARDEN.

The constant wet weather of the past month has made it difficult to keep down weeds. Take advantage of fine weather to destroy them. See all crops are well thinned. Hoe frequently between all growing crops. Take advantage of showery weather to plant out on well-prepared ground good breadths of Broccolis, Savoy, Brussels Sprouts, Cauliflowers, &c. Continue to plant-out Celery in well-manured trenches. *Endive and Lettuces*.—Plant out regularly. *Dwarf Kidney Beans*.—Sow for late crop. *Cabbages*.—Sow for winter greens. *Turnips*.—Sow a good breadth for succession. *Spinach*.—Sow for succession crop. *Endive, Lettuces, and Radishes*.—Sow. *Rod late crops of Peas*. Stake Scarlet Runners. If the weather be dry, all newly-planted crops must be well watered. Ash-leaved Kidney and other early sorts of Potatoes should be taken up early in the month, and greened for sets next season, and then stored away. Herbs of all kinds should be cut as soon as they come into flower. They should be spread out thinly in a shed until dry, and then be tied into small bunches and hung up in a dry, airy shed.—M.S.

FLORISTS' FLOWERS.

ROSES IN POTS.—Well, the labour of the year is nearly over, for all the Hybrid Perpetual and other Hybrid Roses, are or should be withdrawn from under glass and plunged in the open air by the end of June. Henceforth Roses of equal beauty should abound out of doors. It were a pity then to distress our pot plants which are required for early blooming in future years. They are then plunged and mulched, and our aim is to obtain by the end of the growing season a full supply of healthy and well-ripened shoots. To this end where the shoots superabound so as to form a dense bush, a few of the principal shoots should be staked wide apart that the leaves may have the advantage of abundance of light and air. Watering must be strictly attended to, for during the coming months the water passes rapidly from the soil. A thorough soaking of water that shall reach to the bottom of the pot given occasionally, according to the state of the weather, is better than frequent dribbles, which penetrate only a few inches downwards, and may deceive the cultivator by the appearance of moisture when the lower part of the ball of earth is really dry. Remember, however, that roses do not like a wet soil, a moist soil is what we are contending for. Keep all bloom-buds, seed-pods, and wild shoots from worked plants removed. Dust freely with sulphur if mildew appear. Check aphids by syringing with tobacco water, or by brushing the shoots in the palm of the hand. It is most important that the plants be kept clean, and these are means to that end. Further if the cultivator resides near a road or town where deposits of dust or soot are frequent, occasional and copious syringings with pure water to remove these matters are desirable. The Tea-scented Roses may still be grown under glass, where, if a cold rainy summer and autumn ensue, they will likely do better than out of doors, although this being a matter of the future, in respect to which we cannot calculate with certainty, is not of vital importance.—WILLIAM PAUL, *Waltham Cross, Herts, N.*



Chinese Primrose.

1. *Rubra Grandiflora*. — 2. *Delicata*.

NEW DOUBLE CHINESE PRIMROSES.

WITH AN ILLUSTRATION.

THE double-flowered varieties of the CHINESE PRIMROSE (*Primula prænitens*), which we have now the pleasure of introducing to our readers, have been obtained by the Messrs. F. & A. Smith, of Dulwich, to whom we are indebted for our drawings of them. Chinese Primroses are exceedingly valuable garden plants; and these forms are peculiarly meritorious as Chinese Primroses, their merit consisting chiefly in two qualities, which are these:—(1), They bear flowers which are amongst the finest and most perfectly double of any which have yet been produced; and (2), they may be perpetuated by seeds, which as far as we know is not the case with any other of the full-double sorts previously obtained.

Double-flowered forms of this very useful decorative plant are not now rare, and all the better ones, at least, are highly ornamental. The old double red and double white, it will be remembered, belong to the typical race in which the margins of the flowers are quite smooth and even, with a notch at the end of each segment. Even these have been and are still highly prized as ornamental plants, from the crowded masses of flowers they produce, and their long endurance as compared with the ordinary kinds; but they have never become common in consequence of their being only propagated by cuttings or division. A very few years since a much larger and finer double red variety, called *atrorosea*, was brought into notice by Mr. Turner, of Slough, to whom a certificate was awarded for it by the Horticultural Society. This, which belonged to the modern race with fringed margins to the flowers, proved to be a very decided acquisition from its size and fulness, as well as from the rich deep rose colour of its flowers.

Still more recently some continental varieties, named *nivea plena* and *rubella plena*, which were said to have the property of being reproduced in the duplicated state from the seeds, were introduced by Mr. Bull, of Chelsea. They were only semidouble, but young plants raised from them proved to be semidouble too, so that in them a step seemed to have been gained towards the acquisition of a double-flowered race reproducable from seeds. Hardly, however, had the existence of this seed-bearing semidouble form become known, when the varieties we now figure, having this very property of reproducing themselves from seeds, yet being at the same time fully equal in merit to the very best double forms yet known, made their appearance. Bearing in mind the decorative adaptability of the Chinese Primrose, we cannot but hail them as ranking among the most valuable of recent acquisitions; and this judgment will, we think, be supported by the very admirable representations we now publish.

Both the varieties, it will be seen, belong to the double fringed-flowered group, and both of them are of vigorous free-blooming habit. That called *DELICATA* (*fig. 2*), has the flowers at first white, afterwards changing to a delicate blush. The blossoms are individually bold, full-double, and measuring nearly a couple of inches across. In addition to the duplication of the corolla segments, the central organs frequently, if not constantly, become converted into small flowers, two or three of which could be traced in most of the blossoms we examined. The variety is in every way equal in merit to the fine sort named *atrorosea*, to which must be added its property of self-reproduction. The Floral Committee of the Royal Horticultural Society has marked its opinion of the merit of this flower by the award of a First-class Certificate, and a similar award has been made by the Royal Botanic Society. Among the

seedling plants of this, Messrs. Smith have found a peculiarly dwarf-habited sport, with the flowers equally double, and of the same colour: this they have named *The Fairy*. The other variety, *RUBRA GRANDIFLORA* (*fig. 1*), corresponds in a great measure with the foregoing description of *delicata*—that is to say, it has large full-double fringed blossoms, and it reproduces itself from seeds. Its chief difference consists in its colour, which is one of those showy rosy tints which are not uncommon among good strains of Chinese Primroses.

Can any of our philosophical readers explain the singular fact, that, whereas in almost every flower which has been improved by cultivation the process of improvement has been mainly directed towards securing smoothness of surface and margin, in this Primrose the old smoother-edged sorts are at a discount, and the modern improved ones all have fringed edges? It seems as if floral law, which is generally inflexible, has here given way before some other code.

M.

SOMETHING ABOUT GRAPES.

UNDER this heading Mr. Henderson, of Trentham, has an article in the June Number of the *FLORIST AND POMOLOGIST*, which refers to me in such a way as to make some reply necessary to prevent the appearance on my part of discourtesy towards Mr. H., if for no other purpose. I feel that an apology is due to those who may very justly consider that the subject of "*Early versus Late Grapes*" might be allowed to stand over till the matter is brought to the practical test that awaits it in January and February next; and but for the reason I have assigned, they should have had six months' rest from me.

It will be observed that Mr. Henderson, in his opening paragraph, disclaims all intention of following Mr. Tillery and myself in our views as to the merits of early as compared with late Grapes, and adds that he will simply give his own. The temptation, however, seems too powerful for him, and he walks into the subject right and left, giving me the hot end of the poker, where he says, "*Hanging Grapes on the Vine in March is only a secondary evil to extreme early forcing.*"

The following paragraph, however, is that to which I specially refer as requiring a reply from me:—"It is taking us by surprise when we read '*June and July are better wintering months for Vines than August and September.*' Mr. Thomson will no doubt confer a favour on myself and many others with humble capacities who cannot sink to such depths of reasoning." From what Mr. H. says here it is difficult to say what the favour is he wishes me to confer on him. I infer he wants me to assign a reason why I consider Vines go to rest more readily in June and July than in August and September. If I am correct in this inference, I can only repeat my reply to Mr. Tillery in the May Number of the *FLORIST AND POMOLOGIST*. The roots of the Vines are in the earth, and its temperature is higher during the two latter than during the two former months. This is my theory on the subject, and all the facts that have come under my observation fully bear it out. This year the Vines from which we began to cut early Grapes in January went to rest in May; and by the 12th of this month (July); when I pruned them, they had not the slightest sign of making young after-shoots. Most of their leaves had fallen off, and those that had not were quite ripe: this I accept as clear proof of the soundness of the theory I have advanced.

Mr. Henderson and all who have had experience in such matters must have observed what a constant tendency Vines in good health have to

throw out young after-growths in August and September, and with what difficulty they can be induced to take a period of rest so essential to all deciduous plants like Vines before they are started into growth, to produce early Grapes in March.

I am very glad to observe that Mr. Henderson understands why Grapes ripened under the influence of a moderate December sun are thinner skinned than those ripened under an autumn sun; and that he can account for their colouring well "with comparatively little sun where there is *abundance* of light." I am quite sure he will oblige many of your readers besides myself if he will explain these matters; for he may remember that in a previous communication I expressed the hope that some one would.

With regard to what Mr. Henderson says about the march of certain Vines to the rubbish-heap, brought about by their being forced as those here have been, all I can say is that I never heard of any such cases, though my knowledge of such matters is not very limited either as to time or space. Certain it is that the facility with which ours started into growth in August as compared with October saved them from the rubbish-heap, and that, though very unsightly old Vines, they are far more vigorous than when they used to be started in October.

In conclusion, let me say that I hope Mr. Henderson will not forget his promise to give us his remarks on the thinning of Grapes, for his great success as a Grape-grower gives importance to any communication he may make on the subject.

Dalkeith Park.

W. THOMSON.

ROSES FOR BUDDING.

CONSTITUTION is the basis of Rose success. It is useless in our climate to buy or propagate Roses that are bad growers or bad in constitution. In order to find out this previous to propagation, I planted out February the 1st, 165 pot plants (May is the best time for their welfare), but nothing could be learnt of their constitutions and powers of endurance. The only protection these infants had was a hurdle to keep off the furious W. and S.W. wind. In such a wet, cold, windy spring and summer the severity of the test will be admitted by all. Some of these I am about to speak of were here last year and wintered well. I have formed my judgment, not by one plant of a sort but by many.

The first five are the nearest perfection of any Roses that have been out for years—Comtesse Cécile de Chabillant, Sénateur Vaisse, Madame Furtado, and Empereur de Maroc. These are the types of shape, and are good in every respect. The next three are also eclectic and *grand* Roses, of the highest order of merit—viz., Victor Verdier, Madame Boll, and General Washington. These are also strong-constitutioned Roses of free growth.

I will now speak of dark Roses. Maroc is the best of all, except perhaps a first-rate bloom of La Quintinie. To it may now be added Prairie de Terre Noire, the fullest and good upon both stocks; Duc de Cazes, strong grower upon both stocks; Princesse Mathilde, and Madame Melanie. These have all good constitutions; the two last have not been full, nor in such a season could we expect it of them on weak stocks. The colour of Mathilde is like Patrizzi, and very fine. The next lot are good Roses and hardy—Triomphe d'Amiens, Madame Charles Crapelet, l'Elegante, (not Nouvelle), nearly white and of fine foliage and growth. I have fourteen plants of the first Rose, and several are in bloom; its oftenest colour is rich red lustrous crimson, with a beautiful super-induction of velvety lake in broad stripes and splotches. Last year at the full

the bloom was chiefly lake, with mottling of some kind under the rim of the petal; it is well worth a place. Louis XIV. and Mademoiselle Bonnaire are both extra beautiful, but rosarians must be responsible if they adopt them. They do not grow strong enough for use; yet I shall try to retain them. I have bloomed Louis XIV. from a briar budded last year; the wood is moderate, but the bloom (one Rose), was extra fine for rich colouring—viz., crimson purple within; the reverse of the petals, which is the most visible part, being rich dark shaded blood. Triomphe d'Alençon and Belle de Bourg-la-Reine are both worthy of a place. As a hardy strong-growing efflorescent garden Rose, with thick petals, I can recommend Mademoiselle Louise Carique; it shows an eye (sometimes a coarse one), or it would be from one cause or other in the first rank. Its health is conspicuous at this time above all its neighbours.

I have two new Tea Roses in beautiful bloom—Rubens and l'Enfant Trouvé (six plants). The first is a good grower and fine when expanded, as well as when opening—an attribute not peculiar to Tea Roses. The "Infant" is very beautiful, a good grower, and constant bloomer; its colour is creamy without, and slightly chromed within. The shape is good. It is in the way of Elise Sauvage.

The following Bourbons are well worthy of adoption:—Catherine Guillot, George Peabody, and Comtesse Barbantanne; they are good in constitution and foliage, as well as flower. The last looks by its foliage and flower like a seedling from Malmaison, it is smooth-petalled and good. The two next Roses, Madame Guinnoiseau and Madame Vigneron have given very beautiful Roses. The first is a perfect cylinder and as handsome as Madam Rivers; and the second is a large, distinct, handsome, pale silvery rose. I have had no experience of these in the winter. They did not arrive till December, and were planted out six weeks after. They (six of each) have bloomed beautifully and abundantly.

The Roses of 1862 are mostly growing well and beautiful for foliage; they are forming buds fast, and by September I shall be able to give an account of them. One thing is pretty certain—they will not beat the first Roses which I have named.

The following may interest:—The best new Roses exhibited in London on June 11, were Madame Furtado, Beauty of Waltham, and Robusta, a rich-coloured seedling from Paxton. The above Furtado, exhibited by Mr. G. Paul, was the finest new Rose that I saw at either of the Kensington Exhibitions. On June the 26th, the best novelties were Duc de Rohan and Maurice Bernardin, exhibited by Mr. W. Paul. Charles Lefevre was the largest, but its colours were confused; no doubt in dry weather or under glass it would be very fine. John Waterer in Mr. Keynes', and Homère in Mr. W. Paul's ninety-six trebles, were, though small, very beautiful Roses. Furtado, Chabrilant, and Vaisse, were the best-shaped Roses that I saw on the 11th and 26th of June at Kensington.

In conclusion, as I find people are rabid upon the subject of Roses on their own roots, it is but friendly to warn them against that error. If they get two such winters and two such summers as we have lately had, Roses on their roots "lately" struck, with rare exceptions, would be annihilated. Roses, old on their own roots, of course subject to exceptions, would probably do well. Assuredly, Roses on their own roots must not be put out as pot plants before May. I put out six Raglans and six Patrizzis with the Manetti pot plants on February the 1st, and all the twelve died; they are not safe till they are four or five years old. Experience alone can make a man a rosarian. Locality, soil, and seasons will oftentimes upset precise theories. *Experientia docet* means

that you have paid for your education. I have paid for mine, and I have a deal to learn and unlearn.

I regret to say that notwithstanding a noble first bloom here on own roots, and on the Cinnamon, Manetti, and Briar Stocks, the plants generally, from high winds, long-continued rains, and sunless skies, do not look healthy. A squeezing winter will settle the fate of a good many, especially if the transition from summer (Heugh!) to winter be "sudden." One hundred well-rooted Briars (for budding) died last winter, and many have died this summer. Nothing can effectually save our roseries from fresh demolition but a gracious and speedy importation of the rays of that glorious luminary which is the re-agent of Nature and the quickener of the world.

Rushton.

W. F. RADCLYFFE.

WHAT IS TO BECOME OF OUR FRUIT TREES?

A TICKLISH question, considering that many had not overcome the visitation of 1860; and as 1862 appears so far to partake of the general character of that memorable year, the gravest fears may be entertained as to the results, and it almost appears hopeless contesting the case against such odds. That the climate of late years has been unfavourable to fruits is beyond doubt; and were it not for the great aid afforded by glass coverings, the growth of fruit trees would have been seriously checked. But my principal object in addressing you is to ascertain from your readers what difference they find in regard to aspect. The Peaches on my south walls suffered very much, but those on the direct east walls less so. The same by Apricots. How is this? Some years ago, thinking my Peach trees on one south wall were exposed too much to the sweeping winds, I removed them to one more fully protected, and here they are no better; and in fact, in a much worse state than those on the east wall, where the sun leaves them by eleven in the forenoon. Perhaps some of your readers may have similar facts to record, and by comparison something might be known of the reasons, as south walls are and have been considered as the only aspects on which the Peach and Nectarine would grow. At any rate, the assistance of yourself and readers is requested for our guidance in future planting.

PEACH.

EARLY SUMMER FLOWERS, AND WILD PLANTING.

I BELIEVE it is due to Mr. Fleming, at Clevedon, for having organised the best spring garden in the country—that is to say, from March to May; for I hear (not having seen the place myself), that in May the spring-flowering plants are removed to make way for the usual class of summer plants. Railroads are now effecting great changes in the management of country residences; and places, which in the old posting times were never visited until the London season had closed, are now regularly kept open for a run down every Saturday. This change will necessitate a supply of spring flowers regularly kept up, and a good deal of alteration in the arrangement of those places which hitherto had been content with an autumn display alone. I am rather pleased that such will be the case, for it will help to improve the features of country residences during the finest part of the year, and contribute greatly to bring into notice a number of plants one hardly ever sees planted in sufficiently large quantities. I may particularise a few by way of directing the attention of your readers to the subject. First, for I will begin with shrubs. I would plant bushes (not standard trees) of every variety of Cratægus. Of these all the scarlet

varieties are especially adapted, as well as such varieties as *aronia*, *azarolus*, *coccinea*, *corallina*, *flava*, *punctata*, and a few others. These are charming things planted in bushes as underwood, to cover banks and gravelly slopes. To heighten the effect trailing *Roses* of the *sempervirens*, *Ayrshire*, and *Austrian Briar* classes should be mixed with them, as well as the double *Rose*, sweet-scented and showy *Brambles*. These should have no manner of pruning or training, but be allowed to grow wild and naturalise themselves at pleasure. Another combination which I have tried is of different varieties of the *Ribes*, of which there are eight or ten really worthy of growing largely. Nothing can be prettier for a piece of rather hilly ground or bank than the appearance presented by the graceful white *Broom* overhanging *Ribes sanguineum*. Later in the season the cream-coloured *Broom* is quite a gem in its way, and comes into bloom about the same time as *Robinia hispida* and its allies, which are mixed with them. Double *Cherries*, the new double *Plum*, and Chinese *Peaches* I am only just beginning with on a south bank, and if they succeed in blooming freely, as I expect they will, they will form quite a new feature. I am rather disposed to try a few of the new hardy *Bamboo* amongst them to give variety after the *Prunuses* are over. What a charming thing for an old dead tree, or even a live one, is the common *Wood Honeysuckle* (*Lonicera periclymenum*); and how deliciously sweet and graceful when mixed with the *Eglantine Rose*, and such others as the *Dundee Rambler*, *Ruga*, and *Ayrshire*. I must not omit to mention two or three varieties of *Honeysuckle* of the *Belgian* class, which make admirable bushes, with here and there a *Syringa* with them: the latter, however, should be kept rather out of sight, as the bush soon grows too large for a foreground.

I once tried, wanting to make a great blaze, a bank of common and *Moutan Pæonies*, but was obliged to remove them. They were too heavy, though strikingly beautiful, and require very rich soil to induce them to flower freely, as I want a mass of colour at a particular season. At this point I have now substituted *Papaver orientalis*; and a grand thing it is for the purpose, growing amid a group of *Yucca aloifolia*. I am not fond of *Cytisus* standards of any sort (in which form we generally see them)—that is, *Cytisus* or other plants, including *Roses* even, worked on a four-feet stem like an inverted mop, are to me an abomination; and so I content myself with planting dwarfs of this tribe on a roughish piece of ground, something between a tumbled-down bank and a modern rockery. Here they are as good as they can ever become; but I do not like them.

I am going to try this autumn a plan on a large scale which I have tried on a small. Here it is: Dwarf *Apples*, regular antique old fellows, which I have been picking up for some years, with fine deep pink and rosy-coloured blooms, and of which I advise your readers fond of this line of planting to procure some also. These, with a few striking varieties of *Pear*, which I have also selected, I am going to dot about a long sloping piece of ground, and plant *Clematis* of all sorts amongst them, allowing the latter considerable liberty by way of creeping up and around the *Pears* and *Apples*. I expect to have something, a picture in April and May, with the *Pears* and *Apples*; and also something good in August and September when the *Clematis* fall into bloom, and cover up all the old stems of the *Apples* and *Pears*. Probably I shall also introduce a few *Mountain Ash* amongst them, the coral berries of which, like some of the cyder-fruited *Apples*, will look rich overhanging the deep blue and white of the *Clematis*.

Perhaps these remarks will be too homely and discursive for you; but if you choose to insert them I will resume the subject in your next.

OLD GOSSIP.

SUMMER FLOWERS AND THE ROYAL HORTICULTURAL SOCIETY.

SOME time back the *Times*, which rarely says a word about gardening, was grumbling that there were no flowers in the Royal Horticultural Garden, at which I am not surprised; for under the modern system of flower gardening, and especially with an 1862 season, to get the beds into bloom by June would simply be an impossibility; and if the London public expect to see a flower garden in perfection in June, some other description of plants must be used than Verbenas and Scarlet Geraniums, which, though really grand in August, are nearly negative in June.

It strikes me, however, that the great feature necessary to constitute Kensington a grand flower garden in May, June, and the early part of July (before the London aristocracy have left town for the country), is entirely wanting. The design is so purely geometrical that it scarcely admits of the adoption of great masses of colour interspersed with evergreens without interfering with the design.

A writer in your periodical, during the time the gardens were in course of formation, deplored the absence of evergreen hedges and architectural trees, and anticipated the baldness and meagreness which he found would be apparent even when the garden was finished. This is evident enough now; and I and numbers of others besides regret it, for the place loses immensely by comparison even with the Crystal Palace, and the evidence not indicates that it should have been adapted to the London season even more completely than Sydenham. However unsatisfactory it would be now to interfere with the general design, something might be done towards furnishing a portion of the garden with early summer flowers, and no doubt Mr. Eyles' practical judgment would soon obviate the difficulty if left to himself; for instance, there is no reason why the space between the conservatory and Exhibition memorial, and more particularly the lower divisions of the garden, might not be appropriated to this class of plants, leaving the central compartments as now for a geometrical garden. I throw out these suggestions without the remotest idea that they may be carried out; but they will serve to show that the public are not generally blind to defects, which in fact are but too obvious to all visitors.

The want of architectural trees is another point evident to those who have paid attention to the subject. These should have been introduced much more freely and in much greater variety than they are, which, so far as I could judge, are principally Limes and Lombardy Poplars. It is a question whether the rarer Conifers, or even Cypressess and Junipers, would thrive so completely within the field of London smoke; but there are many other good things which would, and which should have been tried. If Deodars have been introduced with the idea of their ever becoming trees, why not a number of others which may be supposed as fastidious as to atmosphere as the Deodar? But besides arboreal decoration, there are a number of smaller shrubs, bushes, herbaceous plants, bulbs, &c., which would have contributed to give a brilliant effect between May and July, room for which, as it appears to me, has been lost sight of by the designer. I presume the Society are hopeful about making the charges for admission pay them something handsome towards defraying the expenses of maintenance, and therefore, in addition to the wishes and objects of the Society, *per se*, the public appetite for this description of enjoyable recreation should have been studied. Your London public always want variety, and vastly prefer masses of colour glowing with life and

vigour to what the *Times* calls "beds of broken glass and coloured gravel," just in the same way as they prefer neatly-clipped Yew or Arbor Vitæ hedges to a brick wall, or a verdant piece of turf to a large breadth of gravel. The introduction of masonry however embellished—of the substitution of retaining walls for grassy slopes, and polychrome beds for real flowers, artistic as they undoubtedly are—are not so telling in the way of contrast as a more natural arrangement would have been; at least an arrangement which might have been in the same style, but which would have left room for more colour in the way of flowers, less of masonry, and far greater space for planting than can now be afforded.

I have been induced to send you my ideas on this subject, which are strengthened every time I visit the garden, by noticing some remarks of yours in your last Number in reference to the Society's alleged treatment of florists.

A COUNTRY F.R.H.S. *

IRISH PEACH APPLE.

WITH AN ILLUSTRATION.

SYNONYME.—*Early Crofton*.

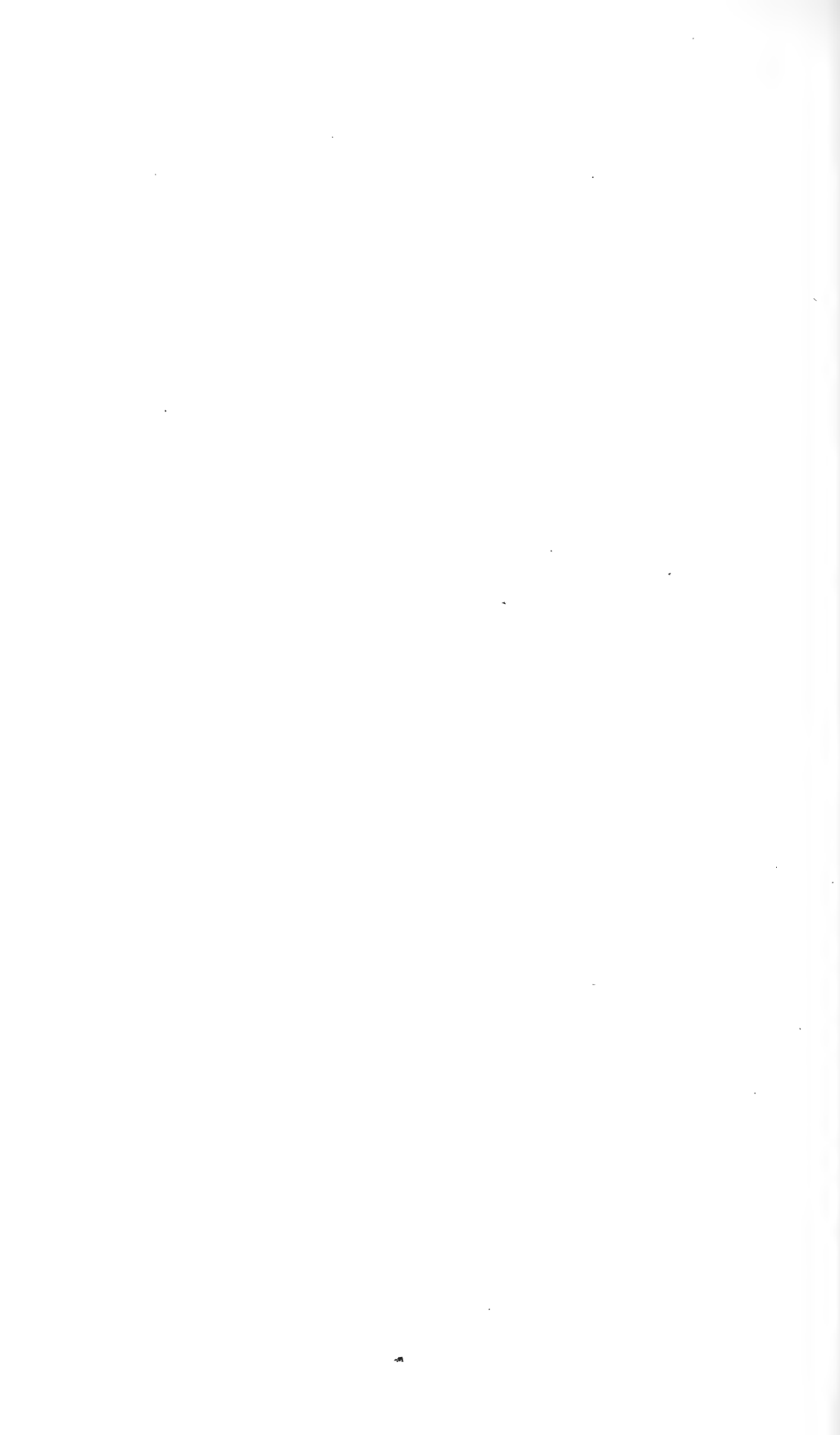
GENERALLY speaking very early fruits are much inferior in quality to those that ripen at a more advanced period of the season. Very early Pears, Apples, and Peaches have mostly been held to signify very indifferent examples of those varieties of fruits, and were it not for their property of earliness, they would not be admitted into cultivation at all. There are, however, exceptions to this, as there is to most other rules, and the subject we have chosen for our present illustration is one of these. Though perhaps not quite so early as the Joanneting, the Irish Peach is so far superior to it, and to every other early Apple, as to render the few days difference in their period of ripening of no consideration to the private grower who requires quality as the primary object. To market gardeners and others, who grow fruits for commercial purposes, the difference of a few days earlier or later is of great moment.

The fruit of the Irish Peach has a fine fragrant scent, and is about the middle size, being about $2\frac{3}{4}$ inches wide, and $2\frac{1}{4}$ inches high. The shape is roundish, somewhat flattened and angular, the angles running into the basin of the eye, and forming, in some instances, prominent ridges on the crown. The skin is smooth, and very highly coloured on the side which is exposed to the sun, and the colour extending even to the shaded side, though in a paler degree. The colour is a fine deep crimson, covered with broken streaks of deeper crimson, and this is strewed all over with yellow dots. The eye is small and closed, set in a rather deep and angular basin, which is lined with thick down. The stalk is short, thick, and fleshy, and inserted in a pretty deep cavity. The flesh is greenish-white, tender, and crisp, abounding in a rich, brisk, vinous, and aromatic juice, which, at the season when it ripens, is very refreshing and agreeable. The fruit is ripe during the first week in August, and lasts all through that month.

This is a most beautiful, and certainly one of the most excellent summer Apples, possessing all the rich flavour of some of the winter varieties, with the abundant and refreshing juice of the summer fruits. Like most of the summer Apples, it is in greatest perfection when eaten from the tree, which is hardy, vigorous, and an abundant bearer.



Irish Peach Apple.



LOUTH FLOWER SHOW.

The Louth Flower Show was held on Thursday, July 10th, in the grounds of Elkington Hall, near Louth, in Lincolnshire, the seat of the Rev. W. Smyth, whose well-cultivated gardens supplied some of the chief attractions to the Show. This gentleman's son, Captain Smyth, is an energetic supporter of the Volunteer movement, and a combination was made of a review of the first battalion of Lincolnshire Volunteers by Major Amcotts, with the annual summer Exhibition of Flower and Fruits, and both were held together, the proprietor having liberally thrown open ample portions of his park for the purpose. The early morning commenced with rain and threatened a foul day; but before the time of assembling the clouds broke, and a fine but not sunny day succeeded; and special trains brought together five hundred volunteers, and some three thousand holiday-seekers. The general arrangements were excellent, and accommodations were provided for all. The tent in which the Mayor of Louth and a Committee of gentlemen gave a dinner to the Volunteers was calculated for eight hundred. The review took place in an adjoining section of the park, commanding which a "grand stand" was erected; and, on the sounding of the bugles, was speedily filled with flowers more attractive than were staged in the tents they had left behind. The undulating ground, which added much to the picturesque character of the scene, was calculated to try the men's perfectness in drill; and the "marching past" was not accomplished without exhibiting some unevenness between the several corps. But the evolutions as a whole were creditable to all, and elicited the commendations of the commanding officer. The bands of the several corps played in succession during the remainder of the afternoon in the neighbourhood of the flower-tent.

The arrangement of the Exhibition was a long centre tent, flanked by a circular one at each end, into which it opened. The former was appropriated to the plants and cut flowers, the two latter to the fruits and vegetables. The plants occupied the centre of all; the Roses, a table stretching from one end of the plants, with a passage between them; and the other cut flowers, a similar table from the other end, with a passage also between the plants and cut flowers: thus the long centre tent had its exhibited objects ranged along its centre, and the visitors before and behind them. This plan may have its advantages; but for large plants one effect must inevitably be to hide one half while the other is seen, and thus to detract from the effectiveness of the *coup d'œil*. Thus the Gloxinias were on one side of the bank, the Achimenes on the other; and the effect of the gorgeous blossoms of the Balsams could not be contrasted with that of the foliage of the Marantas and the Crotons; and the general impression to our eye was that of heaviness. We do not say this in the spirit of criticism, for nothing could be more evident than that every care had been taken to give due effect to all; but to express an opinion that families of plants look better in groups where they can be seen together, and that large plants should be not too many together when they hide their smaller brethren.

Occupying the highest place, and appearing to be the tallest plants in the Exhibition (and we are not sure they were not so), were the Fuchsias, a great mistake but a very common one; moreover, it was too early for them, and only one or two were well in flower. A few were well trained for old woody plants; but not a few showed how great a mistake it is to use old plants at all. The Ferns were very handsome, and a group of six by Mr. Chatterton, of Tathwell, had the first prize. His sorts were—*Dicksonia antarctica* (very fine), *Adiantum trapeziforme*, *Nephrodium exaltatum*, *Platynerium aleicorne*, *Polypodium aureum*, and *Gymnogramma chrysophylla*. All these were large and healthy plants. The handsome-foliaged plants came next in this department, and were very ornamental, only needing the contrast of some stands of flowering plants near them. The best among them was a *Croton*, well set off by *Cissus discolor*, *Maranta zebrina*, and others. The *Achimenes* were not in good condition, and the lot that had the first prize were far too tall for the size of pots. The *Gloxinias* were better, but not first-rate. *Pelargoniums* were past their best, and did not show to advantage, for there are some well-grown collections in the neighbourhood. The scarlets looked best, and helped to set off the room; but the art of growing these for exhibition has nowhere been cultivated as yet. A few stove plants of brilliant colours, such as an *Allamanda* or two, and a very good *Clerodendron infortunatum*, relieved the density of foliage in the centre stand. There were a few good *Cockscombs*, and one really fine lot of *Balsams* from the Rev. James Pretymann, of Carlton.

The side tables at either end for cut flowers consisted, the one of miscellaneous articles, the other all but exclusively of Roses. Of the former there was nothing very remarkable, except some pans of Sweet Williams, of which the first and second prize collections, twelve, each distinct, certainly exceeded anything we expected from the flower. The Roses were in several classes; none, however, more than twelve in a pan, of which there were two classes. The day was too late for them; but there were some good collections, but all more or less out of character. Of the collections of twelve the chief prize of the first was a handsome silver cup, and this was carried off by Mr. Reynolds Hole, as was meet. There could

be no doubt about the correctness of the decision, any more than about the propriety of the cup falling to Mr. Hole in a contest of Roses. But the Rev. James Garvey, who had divided his forces and came in second, might be pardoned a shade of disappointment when one of the Judges re-arranged his pan for him before a circle of spectators, and by exchanging three of the least effective for a Charles Lawson, a Madame Vidot, and a Louise Peronny, taken from his other collection, showed that he had been outgeneralled. His *Senateur Vaisse* and *Madame Purtado* were both good. Mr. Hole's flowers were *Lord Raglan*, *Madame Vidot*, *Cardinal Patrizzi*, *Jules Margottin*, *Madame Boll*, *Paul Ricaut*, *Ville de St. Denis*, *Engène Appert*, *Reynolds Hole* (very fine), *Triomphe de Rennes*, *Gloire de Santenay*, *Madame Knorr*. But where was the redoubtable *Rose-champion* of Rushton? Oh, Mr. Radelyffe! How *could* you, and how could *Will* let you, leave Rushton unrepresented at Louth?

The fruit-tents presented a creditable appearance for a provincial exhibition, but nothing more. There were neither Peaches nor Nectarines; one pot Fig tree tolerably well furnished with fruit, apparently a *White Ischia*, but the fruit was not ripe and there was no name to it. There were two well-grown Pines of about 3 lbs. each, one Melon, a few dishes of Grapes. Strawberries in abundance—one dish deservedly marked first prize was as fine as we ever saw them; it came from W. G. Allison, Esq., and was called *British Queen*. But this we are persuaded was a misnomer, and that they were the *Carolina superba*, a closely-allied sort. By whatever name called, they would have been distinguished at any exhibition. Cherries were not in force. Apriots there were none. Gooseberries were in plenty, and large but unripe. The tables of vegetables were well filled, and showed that the operations of the kitchen garden are not neglected in the neighbourhood; but there was nothing specially to particularise.

Altogether the Exhibition was one that Lincolnshire need not be ashamed of; and the liberality of the owner of Elkington Hall gave a day of innocent recreation and unmixed enjoyment to thousands.

GEORGE JEANS.

THE METROPOLITAN EXHIBITIONS.

ROSE SHOW, ROYAL HORTICULTURAL SOCIETY, *June 26th*.—For a month previous to this date, fears had been expressed lest there should be a "falling off" at this and the kindred Exhibition at the Crystal Palace. The apprehension took this shape. There had been cold inclement days, devoid alike of sunshine and geniality, and characterised by hard pelting rain that had committed sad havoc among this favourite flower. This "falling off" was to appear not so much in a scanty gathering of flowers, but because they would be small, mutilated, and imperfect. Not without some already-ascertained ground was this misgiving entertained; for at the June Show of the Royal Botanic Society many of the cut Roses, if not small, were blotched and soiled, as if the sombre elements had vented their spleen on the gayer drapery of Nature they did not possess. But the reality rose superior to the apprehension, and, despite the predictions to the opposite, the Show was a brilliant one—no ragged or slovenly contingent marred the symmetry of the whole, and the "gay vivacious crowd" revelled amid the "pageant" that "became a veritable feast of Roses."

With 96 varieties, three trusses of each, Mr. E. P. Francis, of Hertford, was first; Mr. Mitchell, of Marcsfield, second; Mr. Wm. Paul, of Waltham Cross, third; and Mr. J. Keynes, of Salisbury, fourth. Three extra prizes were also awarded—to Messrs. Paul & Son, Chesham; Mr. E. Hollanby, Tunbridge Wells; and Mr. J. Cranston, Hereford. And here a word of praise, a richly-deserved tribute to Mr. Mitchell, for the admirable manner in which he had named his flowers. The distinctive class or grouping of the flower—such as *Tea*, *Bourbon*, &c.—was written at length, and beneath it the name of the variety without any abbreviation whatever, transcribed so neatly and so legibly that it was grasped at first sight. How hard a task it was to decipher the wretched caligraphy of some of the other slovenly exhibitors. Their writing was abroad most unquestionably, probably in search of the schoolmaster. The class for 48 varieties brought one group from Mr. Cranston, awarded a second prize. With 24 kinds, Mr. B. R. Cant, of Colchester, was first; Mr. E. P. Francis second; Mr. Keynes third; and Mr. C. Turner, Slough, fourth. With 24 kinds, one truss of each, Mr. Keynes was first, Mr. Turner second, Mr. B. R. Cant third, and extra Mr. Laing, Twickenham. In the Classes for Amateurs, all of which were restricted to one truss of each variety, Mr. J. T. Hedge, Reed Hall, Colchester, was first; Mr. W. Corp, Salisbury, second; and equal third Mr. Thomas Laxton, Stamford, and C. M. Worthington, Esq., Reading; fourth, Dr. Cooper, Slough. With 24 kinds Mr. Hedge was also first; the Rev. Canon Fisher, Salisbury, second; equal third, Mr. Ingle, gardener to E. G. Round, Esq., Colchester, and Mr. A. Moffat, Dunmow. With 18 kinds Mr. Hedge was again first; second, Mr. Stratton, Pewsey, Marlborough; third, Mr. W. Ingle. With 12 kinds Mr. Hedge still maintained the lead, and so close was the competition for the second place that three stands were placed of equal merit—those of Messrs. W. Corp, Ingle, and Rev. H. Helyar, Yeovil;

third, Mr. J. Morris, gardener to Miss Crawshaw, Reading. Mr. Hodge's resources seemed to be inexhaustible, and his flowers were commendable in the highest degree. An enthusiast among Roses as well as a large and skilful cultivator, his pre-eminence was deservedly attained and universally ratified. Both Mr. Keynes and Mr. Corp struggled hard for the Salisbury ascendancy of former seasons; the former maintained it successfully in Class IV. with a stand of 24 exquisite flowers. Mr. Turner did not take a leading position, though "well up" in the same class. His flowers do not appear to possess that stoutness and substance of past seasons. But the varieties—what were they? It was an assembly produced by the widest possible basis of representation. It was a "world's convention" of Roses—the remotest tribe—the smallest section—had its representative flower. Of Hybrid Perpetuals there were fine examples of *Senateur Vaisse*, *Anna Alexieff*, *Comtesse de Chabrillant* (one of those beautifully-formed Roses which inspire love at first sight), *Eugène Appert*, *Madame Boll*, *Victor Verdier*, *Mathurin Regnier*, *Oriflamme de St. Louis*, *Géant des Batailles*, *Triomphe de l'Exposition*, *Caroline de Sansal*, *Lord Raglan*, *Louis Bonaparte*, *Madam Rivers*, *Anna de Diesbach*, *Louise Odier*, *La Ville de St. Denis*, *Gustave Coroux*, *Comte Cavour*, *Triomphe de Paris*, *Evêque de Nîmes*, *Jules Margottin*, *Madame Vidot*, *Catherine Guillot*, *Madame Furtado*, *Général Jacqueminot*, *Louis XIV.*, *Ornement des Jardins*, *Gloire de Santenay*, *Triomphe de Rennes*, *Model of Perfection*, *Beauty of Waltham*, *Alphonse Karr*, *Cardinal Patrizzi*, *Baronne Prevost*, *John Waterer*, *Madlle. Appert*, *General Kleber*, *Lord J. Russell*. Tea Roses were represented by *Gloire de Dijon*, *Adam*, *Madame Joseph Halphin*, *Reine Victoria*, *Josephine Malton*, *La Boule d'Or*, *Clara Sylvain*, *Madame Domage*, *Aurora*, *Smith's Yellow*, *Enfant de Lyon*, *Madame Willermoz*, *Comte de Paris*, *Souvenir d'un Ami*, *Sombrucil*, *Devoniensis*, *Nina*, *Rubens*, *Triomphe de Rennes*, *Safranot*, *President*, *Olympe Lecuyer*, *Madame William*, *Evêque de Nîmes*, *Madame Blacket*, &c. Then there were *Bourbons*, and *China*, and the always popular *Moss Roses*, and *Gallicas*, and *Noisettes* of all colours and shapes and unpronounceable names. In the class for Roses in large pots no collection was staged. For groups in 8-inch pots Messrs. Paul & Son were first, and Mr. C. Turner second. With 12 new kinds of 1861-62 Messrs. Paul & Son were first, Mr. B. R. Cant second, Mr. J. Cranston third, and Messrs. Fraser fourth. The following were very striking:—*Gloire de Chatillon*, large, pale violet; *John Hopper*, rosy purple, with bright crimson centre; *Leonic Moise*, a fine dark velvety crimson; *Rubens*, a white Tea-scented variety; *Maurice Bernardin*, a finely-shaped brilliant deep scarlet; *Model of Perfection*, a pink-coloured flower of good form; *Washington*, rich crimson, of exquisite form; *Duc de Rohan*, a bright shaded crimson; *Catherine Guillot*, fine blush; *Madame Furtado*, a finely formed, rich, deep rose; *Marquise de Foucault*, salmon, of fine outline, but wanting substance; *Madam Standish*, rosy peach; *Alexandre Fontaine*, rich crimson; *Louise Darzins*, a small pure white flower, but finely formed; *Charles Lefevre*, a large showy purple; *Reine des Violettes*, *Etienne Lecroisner*, and *Eugène Bourcier*, three dull violet-coloured kinds, novel to some extent in respect to colour, but with a tendency to flatness. Boxfuls of one kind of Rose came from Messrs. Turner, Hedge, Fraser, Francis, Keynes, and others, the last-named exhibitor having a splendid box of *Senateur Vaisse* which was specially attractive; while *Comtesse de Chabrillant*, *Madame Boll*, *Oriflamme de St. Louis*, *Général Jacqueminot*, and *Charles Lawson* were in fine condition. With 18 varieties of Tea-scented Roses, Mr. Cant was first, and Mr. Hedge second. A decorative vase or basket of Roses produced but one device, from Mr. Turner, awarded a second prize; and with 6 bouquets of different kinds Mr. Keynes was first, Mr. Francis second, and Mr. Cranston third. A little more taste and care expended on these would have greatly enhanced their appearance.

Groups of new plants from Mr. Bull and others assisted to complete the Show; and some fine seedling Pinks from Mr. Turner, seedling *Pelargoniums*, &c., were also staged.

ROYAL HORTICULTURAL SOCIETY, *July 2nd*.—In the conservatory, the arcades, and in two tents, one at each end of the conservatory for fruit and new plants, was this Show arranged, and again was the too manifest unfitness of the arcades for this purpose fully demonstrated. Without the aid of some agent to prevent the rushing-in of cold currents of air, the plants must suffer as they did on this occasion. The day was cold and damp—one of the many that have mingled with the summer days, as if spring would thrust itself forward to grasp the on-coming autumn—a day too inclement for tender plants to be in close contact with the cold chilling atmosphere—and in the tents, through the openings that gave ingress and egress to the visitors; and under the sides, would the same disturbing element rush in sudden gusts, and, scooping up the dust and light sand, would scatter it over fruit, flowers, and plants like a malignant sprite revelling in mischief. The Grapes had an artificial bloom that by no means enhanced their appearance. Peaches and Nectarines looked as if they had been sent to the Show packed in sand. The Melons as if they were too indigestible to be eaten without the aid of small particles of gravel. The cut Roses were in a pitiable plight. *Général Jacqueminot* looked as if he had surreptitiously embraced *Madame Vidot*, and contracted

some of her colour in the act. *Senateur Vaisse* and *Louis XIV.* had evidently just returned from Ascot, so dusty were their habiliments; and *Madame Boll*, *Comtesse de Chabillant*, and *Mrs. Dombain* must have accompanied them; they were "guys" indeed, and the *Pinks* and *Verbenas* next to them had fared as badly. Somehow, however, or the other, despite the magniloquent rhetoric of the *Gardener's Chronicle*, the exhibitions of the Horticultural Society do become but imperfect parodies on those at the *Regent's Park*.

Collections of *Stove* and *Greenhouse Plants* formed a conspicuous feature, and were very gay. With 15 varieties *Mr. Whitbread*, gardener to *H. Colyer, Esq.*, of *Dartford*, was first; *Mr. May*, gardener to *J. Spode, Esq.*, *Rugeley*, second; and *Mr. B. Peed*, gardener to *Mrs. Tredwell*, *Lower Norwood*, third. With 12 varieties *Messrs. Fraser* was first; *Mr. O. Rhodes*, *Sydenham*, second; and *Mr. Cutbush*, of *Barnet*, third. With 9 varieties *Mr. Green*, gardener to *Sir E. Antrobus*, *Cheam*, was first; *Mr. Chillman*, gardener to *Mrs. Smith*, *Epsom*, second; and *Mr. Baxendine*, gardener to *W. H. Smallpiece, Esq.*, *Guildford*, third. With 6 varieties *Mr. T. Page*, gardener to *W. Leaf, Esq.*, *Streatham*, was first; *Mr. Wheeler*, gardener to *Mrs. Philpott*, *Stamford Hill*, second; and *Mr. Tegg*, gardener to *Baron Hambro*, third. *Allamandas* and *Ixoras* were very attractive, while *Stephanotis* and *Pleroma elegans*, *Dipladenias*, *Aphelaxes*, *Ericas*, &c., were intermingled in the various groups. Giant specimens of fine-foliaged plants came from *Messrs. Veitch & Son*, and *Smith, Syon House Gardens*, *Brentford*, who were first in their respective classes; *Messrs. B. S. Williams*, of *Holloway*, and *T. Jackson & Son*, *Kingston*, being second and third with the former; while *Mr. Wheeler*, and *Mr. C. Ross*, gardener to *C. Eyre, Esq.*, *Newbury*, occupied the same positions after *Mr. Smith*. There were *Palms* and *Cycads* of great size, the former stretching out their immense leaves like giants' hands, and forming a canopy for the smaller things at their feet; *Crotons*, *Caladiums*, good specimens of *Alocasia metallica*; and in *Messrs. Veitch & Son's* collection, a fine example of their singular-looking *Caladium Veitchii*, *Cordylina indivisa*, *Coleus Verschaffeltii*, *Pavetta borbonica*, &c. *Orchids* were represented by collections from *Messrs. Veitch & Son*, who were first with 12 varieties; from *Mr. B. S. Williams*, who was second; and from *Mr. S. Woolley*, *Cheshunt*, who was third. *Mr. Baker*, gardener to *A. Basset, Esq.*, *Stamford Hill*, was first with 10 varieties; second, *Mr. Milford*, gardener to *E. McMorland, Esq.*, *Haverstock Hill*; third, *Mr. C. Penny*, gardener to *W. H. Gibbs, Esq.*, *Regent's Park*. With 6 varieties *Mr. T. Page*, gardener to *W. Leaf, Esq.*, *Streatham*, was first; *Mr. Smith, Syon House*, second; and *Mr. J. Green*, of *Cheam*, third. In *Messrs. Veitch's* collection were a splendid *Vanda Lowii*, with a fine spike of rich reddish-brown and buff blossoms, two of which at the base of the spike were yellow; *Vanda Batemani*; a magnificent *Phalaenopsis grandiflora*; *Saccolabium Blumei*, with several spikes of fine blooms; *Aërides Lindleyi*, *Lobbii*, and *Fieldingi*, equally fine; a large bush of *Aërides odoratum majus*, a well-flowered *Cattleya Mossiae*, and some fine *Cypripediums*. *Mr. Baker* had *Dendrobium formosum*, 3 varieties of *Aërides*, *Saccolabium guttatum* and *S. Holfordi*, *Lælia purpurata*, *Cattleya Leopoldi*, and *Vanda suavis*. *Mr. Milford's* plants, as usual, were in admirable condition, but inferior in head of bloom to *Mr. Baker's*. The classes for 9 greenhouse *Azaleas*, and for 9 *Pelargoniums* (*Amateurs*), found no competitors. *Mr. Turner*, *Slough*, was first with 12 varieties of *Pelargoniums*—viz., *Rosa Bonheur*, *Modesty* (a very showy and well-formed light), *Beauty of Reading*, *Douglas* (a very large salmon rose), *Lord Clyde*, *Bacchus*, *Fairest of the Fair*, *Viola*, *Perdita*, *Lucifer*, *Prince of Prussia*, and *Celeste*; second, *Messrs. Dobson & Son*; third, *Messrs. J. & J. Fraser*. With 6 fancy kinds *Messrs. Fraser* were first, with *Sarah Turner*, *Delicatum*, *Multiflora*, *Rosabella*, *Aeme*, and *Princess Royal*; equal second, *Mr. Turner*, and *Mr. Shrimpton*, *Putney Heath*. The former had *Beadsman*, *Princess Royal*, *Musjid*, *Delicatum*, *Cloth of Silver* and *Clemanthé*; the latter had *Aeme*, *Madame Sontag*, *Electra*, *Delicatum*, *Negro*, and *Cassandra*. With 6 spotted kinds *Messrs. Dobson and Son* were first with *Macbeth*, *Fancy*, *Madame Furtado*, *Commandant*, (a rich dark), *Mazeppa*, and *Sanspareil*; second, *Mr. Turner*, with *Bracelet*, *Rembrandt*, *Cyrac*, *King of Spots* (a fine dark), *Guillaume Severyns*, and *Beadsman*. The same exhibitor also had a plant of *Diophantus*, a very bright spotted variety, shown as a seedling last year. *Fuchsias* were a great advance on what has been seen before; the plants were younger, more symmetrical in growth, well-bloomed and comparatively new varieties. *Mr. Cannell*, gardener to *J. Jennings, Esq.*, *Clapham*, was first with *Catherine Hayes*, and *Isa Craig* (dark kinds), *Madame Cornelissen* (a white-corolla'd variety), and *Rose of Castille*, *Prince Alfred*, and *Wiltshire Lass* (light kinds); second, *Mr. Webb*, gardener to *H. Walmesley, Esq.*, *Clapham*, with *Daniel Lambert*, *Souvenir de Chiswick*, *British Sailor*, and *Marquis of Bristol* (dark), *Venus de Medici*, and another light; third, *Mr. E. Gardener*, *Clapham*, with three standard *Fuchsias*. *Mr. M. Higgs*, gardener to *Mrs. Barchard*, *Putney*, was first with *Prince of Orange* (dark), and *Rose of Castille*, and *Venus de Medici* (light). The plants averaged 8 feet in height, and had splendid heads of bloom. No second prize was awarded; but two other collections were placed equal third, but they were much inferior to the first. *Messrs. Veitch & Son* were first in each class with 12 *Begonias* and 9 *Caladiums*. Of the latter the most striking were *Veitchi*, *Chantini*, *Bellemeiyi*, *Argyrites*, and *Wighti*. The whole of one

tent was devoted to new and rare plants. Foremost was a large collection of new Japan plants, from Messrs. Veitch & Son, in ornamental pots, imported direct from Yeddo; and from the same firm came a splendid *Lilium* sp. auratum, from Japan, very odoriferous, having a large white flower, with pale golden bands, and small dark spots; it is dwarf in habit, and attracted a large amount of attention. Also *Lapageria alba*, closely resembling *rosea* in habit, with flowers of the same size; and *Lycnoches* sp. Skinneri, with a huge raceme of greenish-yellow flowers. R. Warner, Esq., of Broomfield, had *Epidendrum* species; and a *Dendrobium* species from Moulmein came from Messrs. Low & Co., Clapton. A dwarf plant, with strange-looking scarlet flowers, from the gardens of the King of Hanover, named *Anthurium Scherzerianum*, was shown by Mr. Wendland. C. Leach, Esq., of Clapham, had specimens of *Disa grandiflora* in flower. Mr. W. Bull had some pretty seedling single *Petunias*; and Messrs. Low and Co. some promising double varieties. Messrs. Downie, Laird, & Laing, Edinburgh, had seedling *Verbena* Lord Craven, a very large bright purple shaded with crimson, a fine exhibition variety. From Mr. W. Thompson, Ipswich, came two beautiful varieties of *Rhodanthle maculata*, a wild variety of *Manglesi*, from Champion Bay, West Australia, colour deep pink, and having a dark ring round a yellow eye; and *R. atrosanguinea* from the same place, a small-flowered variety, deep rosy pink with dark centre.

Of Fruit there was a very nice show indeed. There were fine Pine Apples from Messrs. Tillyard, Allen, Bywe, and Ruffet. Miscellaneous collections of fruit from the former and from Mr. A. Henderson, who also had a fine collection of Grapes, but inferior to one from Mr. Standish, of Bagshot. There were grand examples of Grapes, both Black and White; the most successful exhibitors of the former being Messrs. A. Henderson and W. Hill; and of the latter, Messrs. Beck, Standish, and Mould. Peaches were very fine. Mr. Rawbone had grand fruit of Royal George, Violette Hâtive, and Grosse Mignonne; and Mr. Snow a fine dish of Violette Hâtive. Mr. Rutland had splendid Elruge Nectarines, and Mr. Horwood fine fruit of Downton; while superb Strawberries in four kinds were shown by Messrs. Turner, Lydiard, and Kille. Mr. Turner had Frogmore Late Pine, Sir C. Napier, Empress Eugénie, and Oscar, and also a collection of 36 varieties. Then there were Melons, and Figs, and Cherries, and some admirable Vines in pots. Mr. Standish had eleven splendid fruit of Dr. Livingstone Cucumber, grown in a stove-house heated by peat sods, and planted in soil of a similar character at Ascot Heath, where he is forming a new nursery. From Mr. Ingram, the Royal Gardens, Frogmore, came two seedling Strawberries, Cockscorn, a large dark fruit, and J. Powell, both being well spoken of.

CRYSTAL PALACE ROSE SHOW, *July 5th*.—Not less successful than its predecessor was this annual Rose-gathering at Sydenham. The leading Rose-growers were present, they had excellent flowers, a large company was present, and the weather at Sydenham all that could be desired. The Show was held in that part of the nave reaching from the centre transept to the tropical department. Early in the day nought was visible but double rows of uncouth-looking boxes ranged on the staging place, with anxious exhibitors peering underneath the lids, ascertaining their strength, and calculating the chances of the contest. It was amusing to watch the apparent unwillingness of each to make the first display of his treasures, and when the time arrived for clearing the building for the Judges, scarcely a tithe of the staging had been accomplished. But now Mr. Houghton was seen at the head of a force of police, entreating exhibitors to decamp, and in a short time two magnificent parallel divisions of Roses were ranged ready for review. Mr. Mitchell's stand of 96 vars. was the first exposed to view, soon followed by those of Mr. W. Paul, Messrs. Paul & Son, and Mr. Cant. The flowers of the former were young and fresh, and were staged with that great regard for neatness that seems to distinguish the stand of Mr. Mitchell from those of his rivals. As yet, this exhibitor seemed "going in to win," but the aspect of Mr. Cant's stand, by this time exposed to view, looked too formidable for his Sussex colleague. There were both a breadth and depth about the flowers, that made them manifestly superior in point of size, while their freshness and admirable colouring helped to constitute them the leading stand. Here, with the exception of one class for 34 varieties, one truss of each variety only was exhibited, and it did seem to strike one that it is best to exhibit them thus, rather than in bunches of three trusses. In the latter case, the individuality of the one variety seems lost in the co-partnership of competition, the one touches the other and the effect of both is thereby spoilt. With 48 varieties, Mr. Cant was again first; and Mr. Turner of Slough, second. But with 24 varieties, the positions were changed, Mr. Turner being first, and Mr. Cant second. And now Essex succumbs to Herts, for with 20 varieties Mr. E. P. Francis is first, and Mr. Cant second. The next class is for 34 varieties, three trusses of each, and here Mr. Francis disputes his position against all comers, and maintains it successfully, though but just beating a fine stand from Mr. Keynes, of Salisbury, who, with all his *prestige*, has been unfortunate as an exhibitor this season. Mr. Keynes said his Roses had not done well, at the same time he had individual flowers in his stand that were very fine. During the process of staging,

and on the side opposite to that occupied by the growers' collections, was seen the patient face of Mr. J. T. Hedge, of Colchester, scanning his flowers with the look of an accomplished connoisseur, while an enthusiasm lit up his countenance as each of his magnificent flowers was disposed on the stand before him. He had success within his grasp again, for he was declared first with 36, 24, and 18 varieties. He has certainly on his side some agencies either undervalued by, or else unknown to other growers, that enable him so decisively to lead the way. His flowers were a study, as is the masterpiece of some greater painter or sculptor. With 36 varieties, Mr. Hollingworth, of Maidstone, was second. With 18 varieties, Mr. A. Moffatt, Dunmow; and with 24 varieties, Mr. H. Grant, Midford, Bath. With 12 varieties, Mr. S. Dobree, Wellington, Somerset, was first; and second, Mr. W. Corp, of Salisbury.

Perhaps the greatest interest was concentrated on the Class for the Best Collection of New Roses for 1860—61. Here again did Mr. Cant gain first honours, and next to him came Messrs. A. Paul & Son. Mr. Cant had Madame Boll and Belle de Bourg-la-Reine (both shades of brilliant rose), Vainqueur de Solferino, Montebello, Marquise de Foucault, Triomphe de Lyon (rich dark crimson), Rubens, Victor Verdier, Sénateur Vaise, Princesse Clothilde (delicate rose), Madame Pierson, La Boule d'Or (golden yellow, Tea-scented), Reine des Violettes (pale purplish-violet), John Waterer, America, Admiral Nelson (bright carmine), Louis XIV., Madame Furtado (a splendid bright rose), Duc de Cazes, Madame Charles Crapelet, Robert de Brie (another dull-looking purple), Catherine Guillot (blush, very fine), Clement Marot, Comtesse de Kergolay, Jean Bart (deep purplish-crimson), Abd-el-Kader (deep crimson), Madame Standish (delicate pink, but wanting substance. [Oh! how unlike J. S.]), Olympe Freanay, Adelaide Fontaine, and Triomphe d'Amiens. In the other stands were Eugène Appert, President, Gloire de Santenay, Lord Clyde, Souvenir de Comte Cavour (a promising dark Rose), Buffon, Victoire de Magenta, Madlle. Bonnaire (pure white, with pink centre), Louise Darzins (a small white), Leonie Moise, Madlle. Eugénie Verdier (a brilliant rose), J. F. Lombard (a large crimson), André Leroy (a fine deep crimson), John Standish (violet crimson), Vulcain (a very dark but somewhat dull flower), Mrs. Dombain (an exquisite deep blush of excellent form), Reynolds Hole (brilliant pink), André Desportes (a large rose-coloured variety), Comte de Falloux (bright cherry), Olivier Delhomme (rich dark crimson), Alphonse Damazin, Wilhelm Pfitzer (both dark flowers), Souvenir de Lady Cardley (a bright Général Jacqueminot), Maréchal Vaillant, Duc de Rohan (both crimson), Model of Perfection, Duchesse d'Alençon, La Brillante, and Agaterre (all shades of blush).

Given, one of the Yeddo flower-pots imported by Messrs. Veitch & Son, and the requisite number of Roses, and the success will be commensurate with the taste displayed in the arrangement. Taste was not made bankrupt for the run on it made by the exhibitors in this class; perhaps the best taste would have been displayed by the removal of one or two of the designs from public gaze. Fancy £6 being given in three prizes for a collection of new Roses of 1860-61, and the same amount in three awards for the 30 Roses exhibited as just stated! Compared with the latter, the former is niggardly estimation indeed; compared with the former, the latter award is both ridiculous and wasteful.

REVIEW.

Cranston's Patent Building for Horticulture; or, an Account, with Illustrative Sketches, of Cranston's Patent Building as applied to Horticulture. By James Cranston, Architect. Birmingham.

This last eighteenpenny pamphlet, on Cranston's principles of erecting horticultural buildings, should be read by every one at all interested in the subject; by those about to build garden-houses, and those who have built, for both classes may learn much by its perusal. Not that we mean to assert by this, that the system laid down by Mr. Cranston is perfection. Far from that; but the work enunciates principles which, the more they are ventilated and thought upon, will tend to point out the real cause of many a failure in growing house fruits and flowers, as well as to show us that bricks and mortar, paint and putty, can be, in the main, dispensed with, and that the ever-recurring expense attending the maintenance of garden structures in repair need not be. Once let us establish a right understanding on these heads, and we shall have done horticulture a real service.

Sorry should we be to detract anything which fairly belongs to Mr. Cranston, as the author of the system his work introduces to the public; and yet we are bound to tell him that his principles are not new to us, or to very many horticulturists besides. The question of open laps to the glazing, so as to admit a uniform admission of air over the surface of the roofs of forcing-houses, was advocated so far back as 1831 by one of our then best practical gardeners, and the advantages to be derived from the practice were laid down much in the same language as is now employed. In fact, this subject of ventilation has been constantly on the *card* for thirty years; and it must be no small consolation to gardeners, who have been strenuously fighting for a better appreciation of the principle against horticultural

architects, to know that one of their class has taken the lead on a question hitherto either misunderstood or undervalued by them.

The author alludes to the great pioneer, Sir Joseph Paxton, as the first to show the adaptability of glass to the works of architecture, either large or small; though, by the way, his patent fruit-houses are behind the mark in constructive skill, and in economising space, and to the author of "Orchard-houses," who may truly be termed the father of popular glass erections. Nor can we hold with the author, when he calls Mr. Rivers' introduction of orchard-houses, or hedge-houses if you will, *a small step*; for certainly nothing has tended to promote the cultivation of fruits so much as these houses have done, or brought the means of cultivation to the door of so numerous a class; and gardeners, amateurs, and invalids, might well consider the propriety of presenting Mr. Rivers with some public acknowledgment for his services, in promoting a most delightful and useful branch of gardening. We were the first to advocate the usefulness of orchard-houses in these pages, when some great lights in horticultural literature had nothing to say in their favour, or "damned with faint praise" their introduction, and have only found out that they are really useful adjuncts to gardening when everybody else had adopted them.

The manner in which Mr. Cranston constructs his buildings is simply a system of short planes or slopes, as opposed to the long slope generally adopted, and by these means a form more nearly approaching the curvilinear in shape is produced. These planes may be 42 inches, or less, in depth, the former being the largest size in which sheet-glass is cut. Each of these glass slopes rests at the top and foot on what Mr. Cranston calls "radial ribs," a series of horizontal bars or rafters, running the length of the building, and placed as far apart as the slopes are in depth, these ribs again resting on a framework, or principal, of timber, forming the section of a polygon, each angle being represented by the glass slope it has to carry. A good idea of these erections may be formed by imagining long 3-feet sashes glazed with single squares, and placed horizontally one above another, at angles varying with the width and height of the house. But the office of these radial ribs is not confined solely to forming supports to the tops and bottoms of these slopes. Formed of deal timber, placed edgewise (so we take it by the appearance of the engravings), they are perforated throughout their entire length, and form the mode whereby ventilation is given to the houses. This glass is fitted at the top into a groove formed below the ventilating openings, and also in the bars, whereby the use of puttying them in is dispensed with; and the glass is prevented from falling out by a button between each two squares, which keeps them in their places; and you have only to turn this button to remove the whole of the glass, without interfering with the framework of the building.

It will be obvious, from this short outline of Mr. Cranston's plan, that, as the depths or widths of the slopes admit of being made of any depth less than 42 inches, a great variety of outline can be obtained; in fact, one closely approaching (as we have previously observed), the curvilinear, and this, too, with straight glazing, and ventilation between each 42 inches (or less), of roof. We need scarcely say that, by this step towards cheap glazing and uniform, ventilation is obtained. In a letter before us Mr. Cranston states, that he has considerably increased the areas for ventilation; and we can assure him, that if he can give ample ventilation through these radial bars without materially increasing their depth (for that would be a defect architecturally), we see no reason why his principle of construction might not be carried out to any extent, supposing always another contingency is provided for—viz., safety from storms, which appears to us rather questionable, looking at the projecting slopes; for as the author observes at page 29, when speaking of the advantages his plan possesses, "the unevenness of the roofs externally tends to conduct the air towards the ventilators;" and Mr. Cranston may find, in stormy weather, that the projecting eaves of his glass slopes may interfere disagreeably, in intercepting what, under the old system, would "roll over the house." We think, however, Mr. Cranston has too practical a mind not to have foreseen this. We omitted mentioning that, by a very simple contrivance, the ventilating ribs are closed or opened at pleasure from the inside.

That Mr. Cranston has reduced the art of building large glass erections to the simplest form of construction hitherto invented, we are pleased to admit; and should the objections we have, in all friendship, brought prominently forward in this notice be overcome, he will have done much towards simplifying in-door gardening, by providing houses at once simple, and thoroughly efficient for all the purposes of cultivation.

CALENDAR OF OPERATIONS.

CONSERVATORY.

A FEW handsome specimen plants tastefully arranged will make this house sufficiently gay for the present season. Climbers, and the permanent plants in the borders, should now have every atten-

tion to secure well-ripened wood and well-formed buds. Keep climbing plants well thinned. Water well when required. Plants for autumn and winter decoration must now be well attended to. Shift and tie-up such as require it. See they are in a suitable

temperature. Water freely and syringe in the afternoon.

GREENHOUSE.

The large plants that are out of doors should now be removed to a sunny place; otherwise, if left in the shade, the young growth will not get ripened, and unless it gets thoroughly matured it is hopeless to expect abundant bloom next year. Plants to flower next spring should not have their shoots stopped after the beginning of the month. Attend to the plants in the houses. Give abundance of air night and day. Shade only for a few hours in the heat of the day, and towards the end of the month dispense with it altogether if possible. Turn the plants round often, and water well when they want it. Look to the young stock in pits, and if any plants require a shift give it immediately, that the pots may get pretty well filled with roots before winter. Stop the shoots and tie-out as they want it. Give plenty of air; water well when necessary, and syringe every fine afternoon. Shade in very bright weather, but dispense with it as soon as you can.

STOVE.

Many of the specimen plants will now be in flower, and should, if possible, have a house to themselves. Give them plenty of water; give them plenty of air; and shade daily. Young plants and others not in flower should have a moist, growing atmosphere; they must be well watered and syringed daily. Pot and tie-up such as may require it. Keep down insects.

FLOWER GARDEN.

The weather on the whole has been unfavourable for flower gardens. The thermometer was several nights during June as low as 40°; this, with cold, strong winds, and frequent heavy rains, has caused the plants to make slow progress. Every attention must now be given to pegging-down, tying, and arranging the young growth, in order to get the beds filled-up as soon as possible. Keep everything in the most perfect order. Cuttings of the different kinds of Geraniums should be put in as soon as they can be obtained without detriment to the masses. It is also advisable to get cuttings of all "bedding stuff" put in as soon as convenient; as whether potted-off, or put into boxes to store away for the winter, they always do much better when well rooted. The young shoots of Roses, if put into a light sandy soil and placed on a gentle heel under glass will root freely, and with, with attention, soon make nice plants. Sweet Williams, Wallflowers, Antirrhinums, &c., should now be planted in borders where they are intended to flower. *Pleasure Grounds*.—The principal work here at present will be rolling walks, mowing lawns, and cleaning. Look over trees and shrubs, and pinch-off any straggling loose shoots. There is no better season than the latter part of the month for transplanting large evergreens.

FORCING.

FRUIT.—*Pine Apples*.—Plants that are swelling-off their fruit must have liberal supplies of water and occasionally of liquid manure. See they have a nice bottom heat and give them plenty of air. The autumn fruit will now be in flower, and those for winter will have "shown." Keep a dry atmosphere until all are out of flower. A steady bottom heat must be regularly maintained. Give air plentifully especially in the forenoon, and close up early in the afternoon. The young stock should now have their final shift for the season. Keep them well up to the glass, and be careful not to crowd them. Give them air freely, water when necessary, and, above all things, see the bottom heat is steady and uniform, not one day down to 60°, and another day up to 120°. Many Pine plants are killed by a ruinous high bottom heat, heavy waterings and a high temperature, under the mistaken notion that Pine plants require such treatment. *Vines*.—Gentle fires are absolutely necessary in all the houses, unless in very hot weather, for the purpose of ripening the wood, as well as the late crops. There has been so little sunshine during June and July, that without fire heat the wood will not get properly matured. If this be neglected now, it will be in vain to expect satisfactory results next season.

The early-house will now be at rest, and this is a good time to get all the lights painted and put into proper order. *Ripe Grapes* must have plenty of air, and the house kept cool and dry. Keep a little fire heat in all the late-houses. Keep as dry an atmosphere as you can consistently with the health of the Vines, and give an abundance of air, by these means if the borders are all right, you will get well-coloured and well-flavoured Grapes, and the wood will be properly matured. Shanking and mildew are principally caused by cold wet borders, want of air and a stagnant atmosphere. *Peaches and Nectarines*.—If our former directions have been carried out the wood in the early-house will now be quite ripe, so that the lights may be taken off, which will benefit the trees, and they can undergo any repairs or painting that may be required. When the fruit is all gathered in the late-houses, give the trees a good syringing and pay every attention to ripening the wood. *Figs*.—As the second crop of fruit will now be ripening, syringing must be dispensed with, and water given only when necessary. Give plenty of air. *Cherries*.—Shift any trees that may require, and carefully replunge the plants. They will not now need much watering, but on no account should the soil be allowed to get too dry. *Strawberries*.—These should be put into their fruiting-pots at once. When potted place them tolerably wide apart in beds in open situations where they can receive the full benefit of the sun during the day, and of the dews at night. They will not need much watering for some time unless the weather be very hot and droughty. Those potted last month will now be filling the pots with roots and will need attention in watering. Keep all runners pinched off. *Cucumbers and Melons*.—Attend well to the watering. Keep the bearing plants thin of shoots and the foliage clean of insects. See the young plants have plenty of heat. Thin and regulate the shoots and water when necessary.

HARDY FRUITS.

Keep all the shoots of Peaches, Nectarines, and Apricots well nailed-in. When the fruit begins to ripen expose it as much as possible to the sun, by removing any leaves that may shade it. Go over Pears, Apples, and Plums on wall, and stop close back all shoots, as there is now no danger of the buds at the base of the shoots breaking. Mat Gooseberries and Currants. Cut away all the Raspberry canes that have done bearing. Make fresh plantations of Strawberries, but plant no new kind that you have not seen grown.

KITCHEN GARDEN.

Persevere in the destruction of weeds in dry weather. The long continuance of heavy rain has made it a difficult matter to keep them down. Keep the ground well stirred between all the young growing crops. As soon as any ground becomes vacant it should be dug and planted afresh. *Earth-up Celery* when fit in dry weather. *Winter Spinach*.—Sow a large breadth early in the month. *Winter Onions*.—Sow also early in the month. *Lettuces* to stand over the winter, sow early in the month; also, *Cabbages* for planting in spring. *Cauliflowers*.—Sow twice during the month, about the 10th, and again about the 22nd, a day or two sooner or later will make but little difference; but see the ground is in good order and the weather favourable when it is done. Plant out *Lettuces* and *Endive* on warm borders. Towards the end of the month plant out *Cabbages*. Look over *Tomatoes*, *Gourds*, &c., and remove any leaves or shoots that shade the fruit. *Herbs*.—Cut and dry.—M. S.

FLORISTS' FLOWERS.

ROSES IN POTS.—The instructions given last month still hold good. Such plants as have grown so vigorously as to fill the pots with roots may be shifted into larger pots, disturbing the roots as little as possible in the operation. No soil is better than decayed turf and stable manure, of which a good stock should always be on hand in every well-ordered garden. It is still a good time to add to the stock of pot Roses, as there is a long growing season still before us, and plants added now should bloom well next spring and summer.—WILLIAM PAUL, *Waltham Cross, Herts, N.*



Lilium Auratum.

C. Chabot, Zucc. 9^a Skinner 5^a

LILIUM AURATUM.

WITH AN ILLUSTRATION.

WE are indebted to Messrs. Veitch & Son, of the Chelsea and Exeter Nurseries, for the opportunity of placing in the hands of our friends and patrons the accompanying figure, by Fitch, of the most remarkable novelty amongst plants which has been seen in our gardens during the present year. *LILIUM AURATUM*, which is the name borne by the plant we are alluding to, is decidedly pre-eminent amongst the introductions of 1862; and to Messrs. Veitch & Son belong the honour of having been the first to flower it, and to introduce it to the notice of plant-lovers. Our figure was taken in the Chelsea Nursery in the month of July last, shortly after the plant had won at South Kensington the highest reward offered for novelties, and had created a sensation amongst the gay crowd which assembled there on the occasion of the July horticultural fête.

This Gold-banded Lily was introduced to England by Mr. John Gould Veitch from Japan. It was found growing wild on the hill sides in the midland provinces of that country; and Mr. Veitch states that there can be little, if any, doubt as to its hardiness in this country, as he has known from 14° to 16° of frost to occur in the localities in which it is found. There the flowering season is July and August, or, according to Mr. Fortune, the hottest months of the year, from the end of June to the beginning of August. Here Mr. Veitch's plants have continued to bloom in succession from the commencement of July; and we believe that in others, in the hands of Mr. Standish, the blossoms are only just now appearing.

Of the plant itself we hardly know how to write in terms sufficiently laudatory. Even in what, according to some accounts of it, we must regard as a puny condition of growth, a couple of feet high with a single flower—even in this condition it is grand; nay, more, it is glorious. What, then, will it be when it reaches what Mr. Fortune tells us is its usual stature—4 feet, and produces “three, four, and five of its large blossoms on the top of its stem?” It will then be grandly glorious, and *L. speciosum*, the finest Lily we had previously known, must hide its face eclipsed.

What the blossom is our plate will show, as well as its area will permit. The plant itself is a comparatively slender grower, with a smooth stem clothed with narrow lance-shaped leaves, which are acute at the base. At the top of the stem comes the flower, or flowers—one in the plants we have seen in bloom with Mr. Veitch, two in others of what is reputedly the same species growing with Mr. Standish, and from three to five in a state of nature according to Mr. Fortune's evidence. In the plant shown at Kensington the flower stood erect, but the natural position seems to be nearly horizontal, or sub-declinate as it is technically termed. The broad somewhat wavy segments of the perianth recurve so as to give the outline of a broad shallow vase; and with their parts thus recurved the blossoms measure between 8 and 10 inches across. The colour is white, with a broad stripe or band of light golden yellow down the centre of each segment, the surface being also studded over with wart-like reddish-purple spots, and recurved truncated spine-like projections, and the base being villose within. To all these features of beauty this new Japan Lily adds a charming sweetness, the flowers having a deliciously aromatic odour, something like the perfume of Orange blossoms.

This Lily needs no recommendation of ours to win its way into every garden. Its blossoms, of which Mr. Fitch has made a truthful copy, are in their silent beauty more eloquent than words.

M.

SMOOTH CAYENNE PINE.

I WAS very much surprised at the sweeping condemnation of this Pine, which appeared in your March Number by your correspondent "M. S.;" and the only impression which it made on my mind was, that it might be possible that "M. S." had not got the true variety. From my own experience I can most heartily endorse the opinion which had previously been given through your columns in answer to a correspondent—namely, "that the Smooth Cayenne is as good as a Queen in summer, and much better than that variety in winter, &c.," and was certainly very much astonished to see "M. S." affirming that "he did not consider the Pine worth growing, and that it is apt to come with defective pips, that the bottom part decays before the top is ripe, and that when the fruit is ripe it only keeps for a very short time before it begins to decay." Now, my experience is just the very opposite of this, having cut a great many Pines of this variety lately from 10 and 11-inch pots, at different seasons of the year, weighing from 6 lbs. to nearly 9 lbs. each, never having observed fewer defective pips in any other variety, and the fruit have invariably been pronounced as excellent with regard to flavour and juiciness, while I have frequently kept fruit for three weeks in a perfectly sound condition, after they have been cut, in a dry room. It was only last week that I mentioned these matters to a gardener who has had very extensive experience in the growth of this and other varieties of Pines, and he pronounced the Smooth Cayenne, taken as a whole, to be unequalled by all others that he knew. And on stating to him my experience of it as above, he said, that in point of keeping after being ripe, he had frequently kept it more than three weeks in a good condition. He stated also, what I strongly suspected, that there were two other smooth-leaved sorts in circulation for this fine variety, which true and fine variety, he said, had sprung exclusively from the crowns taken from some fruit sent as a present to our beloved Queen by the late King, Louis Phillippe, of France, and said that this was the reason why the Smooth Cayenne had been pronounced defective by some growers. Should "M. S." have the least suspicion that he is growing a spurious variety of this Pine, I will be happy to place in his hands a plant or two of what has proved so very superior here, as well as at other places.

Archerfield.

D. THOMSON.

APRICOTS NOT FRUITING.

WE often see large Apricot trees that never bear a good crop of fruit. In some cases the trees flower freely, but the blossom drops off instead of setting fruit. In other cases scarcely any bloom appears, and the little there is has not strength to produce fruit. Some trees will set a good crop of fruit every year, and yet almost all will drop either before or at the time of stoning, so that very few will come to maturity.

The fault is generally laid to the soil being too wet or too cold, but very seldom to being too dry, which, from close observation, I believe is more often the cause of failure than anything besides.

Within the last few years I have taken up and replanted a large number of fruit trees of all sorts and sizes, including Apricots planted from twelve to twenty years, which had never been known to bear a full crop of fruit. I do not ever remember taking up an Apricot tree of any size but I have found the soil under and about the roots very much too dry, especially large trees that had not been moved for many years—I have found the soil about the roots as

dry as dust, with the roots a complete mat of suckers. Even in the autumn of 1860, after such an extraordinarily wet cold summer, in removing Pears, Plums, Peaches, and Apricots on a south-west border, all of which trees had occupied the same ground for several years without removal, the Apricots had scarcely ever borne any fruit. I found the soil moist about the roots of all except the Apricots, where it was so dry that the five-pronged steel fork which I use for fruit-tree-lifting was of no use at all—the soil ran through them like dry sand.

We generally see the Apricot throw up more suckers than any other fruit tree; but, I think, we should not for that reason suppose the branches and foliage cannot take all the sap.

I have seen trees taken up and replanted and well supplied with water for two or three years after, and bear excellent crops of fine fruit without any sucker appearing, although they had never had a full crop before; and the border for several feet round the trees had been a complete mat of suckers.

It might be asked, Why should Apricots suffer under the same conditions that other trees do not? I think that may be accounted for by its having so much more foliage to support than any other fruit tree in the same space, which causes a greater demand on the roots than they can supply, especially on light dry soil, so that the foliage consumes all the moisture it can obtain, and the fruit, if any, drops for the want of it.

The remedy appears simple enough. Keep the trees well supplied with water while in a growing state; at any rate it is quite worth the trial.

I would not plant in a natural cold wet soil, as there the wood would not ripen, and the trees would suffer when not growing; but if planted in a well-made border and well supplied with water at the proper season, I think we should hear less of the spring frost cutting off the blossom. C. C.

THE HORTICULTURAL SOCIETY AND FLORISTS' FLOWERS.

I HAVE with some difficulty restrained my pen from joining "A Florist of the Old School" and "Florist," contributors to the July Number of your periodical, in commenting upon the liberality of the Council of the Royal Horticultural Society in making their awards, and excluding certain flowers from the great Exhibition; but as the writer of an article in the *Gardener's Chronicle*, August 2nd, page 716, remarks, "a little ventilation of this subject may do no harm," I shall trespass on your kind indulgence and make some observations on this subject, sincerely hoping the ventilation may extinguish the "smouldering dissatisfaction" rather than kindle a flame. That there is a just cause for dissatisfaction no one can deny; at the same time a little courtesy and disposition to consider real or imaginary grievances would put all to rights. "An Old Florist" in your July Number complains of the small awards made to certain flowers in comparison with others. Had he turned to page 398 of the "Transactions of the Royal Horticultural Society" for July, he would find four examples of extreme liberality; he would there see that extra prizes of the value of *five shillings each* were awarded to four exhibitors for their very interesting collections. What the world will think of this liberality I cannot say; and how far it may stimulate other exhibitors to bring their collections of plants or cut flowers, I presume not to foretell, but surely it was little short of an insult to those gentlemen who are such staunch supporters of the Society. But whence this unheard-of spirit of economy? Are the funds of the Society at so low an ebb? Or has the expenditure on those two canvass tents, which have so completely failed in their purpose, so crippled the Society's resources

that it cannot afford to be liberal? There must be some one to blame for such mismanagement.

But now for a word about florists' flowers. I heartily wish this distinction was entirely abandoned. Many persons well remember the hard words and unkind feelings which arose from the use of this term in the former days of the Society's existence. There were then individuals connected with Chiswick Gardens, and there are still individuals whose prejudices against a certain class of flowers cannot be overcome. I maintain that all flowers are florists' flowers in the true sense of the word. The man who cultivates Orchids is as much a florist as he who grows a Pansy or a Pink. Do away with the term "florists' flowers" and let liberal schedules be prepared by competent persons for the exhibitions, and we shall have no more "smouldering dissatisfaction." The writer in the *Gardener's Chronicle* remarks, "that, in the first place, exhibitions must be made to pay." To this I give my cordial assent. There would be no need of further expenditure if the prizes were readjusted. The distinction is at present much too great in the sums of award, and some plants are brought too prominently forward. It is evident at present the flowers which contribute most to the brilliancy and beauty of the exhibitions are the worst rewarded. It is easy to make out a list of the so-called *florists' flowers*, and *other flowers*, to arrive at the value of the prizes awarded respectively to each class; but this proves nothing. The spring exhibitions could not exist without the former; and the latter without the former in the summer exhibitions would prove a failure. Put aside the offensive term "florists' flowers," let each favourite flower in its proper season be represented at our exhibitions, and there will be no more dissatisfaction. I most sincerely hope that a little consideration on this subject will induce the Council to receive suggestions for framing the schedules of future exhibitions. There are persons both competent and willing to give their time for this purpose without any desire of dictating to the higher powers, and who would suggest such alterations and additions in the present schedules which would satisfy all parties; and thus the Royal Horticultural Society would be enabled faithfully to discharge its bounden duty—the encouragement of floriculture as well as horticulture.

F.R.H.S.

NOTES ON STRAWBERRIES.

How persons can and do contrive to grow a hundred different sorts of Strawberry for years together, and keep them distinct, without fretting themselves into a lunatic asylum I do not understand. I have tried some twenty-two sorts and have had enough of it; however, I have now tried them, and the experience is worth something now it is gained, though I am by no means certain that what is experimentally true here will be a safe guide elsewhere. In by far the greater number, however, I find it is so; and the character of them in Yorkshire, in Buckinghamshire, or in Dorsetshire, describes them well here when climate is allowed for. To this there are a few exceptions on both sides. Sir Harry is here excellent in every way *except to eat*; the best of all for the preserving-pan, but worthless for the table. On the other hand, the best of all the numerous British Queen family is Omar Pacha, a very second-rate variety in the south; it is not large for the present race of Strawberries, but is hardy, healthy, a superabundant bearer, and higher in flavour than any, except that very rare dainty a British Queen in perfection. It is my staple for the dessert. The British Queen itself I am compelled most reluctantly to part with. It grows the largest with me of all the large Strawberries, and

when in perfection is quite unequalled; but it is too tender for this climate, and what is a worse fault, too uncertain. The latter fault also belongs to the Carolina superba, of which, however, I shall keep a small bed for a dish of very large Strawberries on occasion.

The object of this communication, however, is to say two of the new ones of last year have supplied me with the means of reducing my stock of sorts within reasonable limits, and these are Frogmore Late Pine and Rifleman. Both are large and fine, though not so large as the two preceding; both, and especially the former, are among the highest-flavoured of the season, the flesh more red and juicy than those of the Queen family, red enough indeed for preserving. They are also very hardy, and great croppers. The Late Pine ripened with me, as I see it also did with Mr. Turner, among the first; yet it well deserves its name, for there are signs that it will be in bearing when all the rest are done. I consider this likely to be the most useful variety introduced since the old and not yet obsolete Keens' Seedling.

Alford Vicarage.

GEORGE JEANS.

THE ROYAL HORTICULTURAL SOCIETY'S GARDEN IN SOUTH KENSINGTON.

THAT this Garden as at present laid out and planted is a partial failure is generally admitted; and I think with your correspondent, "A Country F.R.H.S.," that a different style of planting must be followed to make it popular with the public. As the world's fair has taken more country gardeners up to London than usual, the Society's Garden has been visited and criticised; and I may say that nine out of ten return disappointed with the arrangements and general effect. In the present Superintendent the Society has got the right man in the right place; and, if left to himself to manage all the details, I have no doubt but there would be spring flowers in abundance, and plenty of the usual bedding display in July, August, and September, with a different arrangement of the shrubs and trees. The gingerbread style of flower-gardening now in vogue—namely, the "polychrome beds of broken glass and coloured gravels," may be very artistic and pleasing to some, and in small geometrical flower gardens may be tolerated as adding some variety and effect in the winter months; but it has often struck me that a great deal of trouble and expense in this style might be saved by having the patterns printed on oilcloth, and pegged down on the lawn or parterres where wanted.

The trees, as at present planted in the Garden, are not in my opinion well fitted for the purpose; for Lombardy Poplars and Limes are two of the most rubbishy sorts which could be employed, as they generally shed their leaves by the middle of August in hot, dry summers in town gardens. A few of the Maples and Sycamores might be used for shade, as they stand the smoke of London well; but the great want in such a garden is trees of an architectural character. To commence with the Deodar Cedars planted, there is little chance of the trees of the size used ever making handsome specimens; and it would have been far better to have selected a few young, close-growing trees from 12 to 16 feet high. One of the finest Conifers for such a garden would be *Thuja borealis*; for when pinched-in a little in the side branches when young it grows compact, and keeps its beautiful green colour in the winter. I have specimens so managed 10 feet high, and no fastigate tree I have yet seen equals it in beauty. Lawson's Cypress is another fine, graceful tree, but wants no training, as the branches naturally droop, and forms a close, compact tree when of the height of 10 or 12 feet. The *Thuja gigantea* with me is

growing very compactly, and about the height of 8 feet; and would, I think, be worth trying in such a garden, as well as some of the other tall, close-growing *Arbor Vitæ* and *Junipers*. Of other Coniferous trees which ought to be tried, the best would be *Pinus cembra*, *Picea pinsapo*, *Abies Nordmanniana*, and *Araucaria excelsa*.

I think no public or private garden of any pretensions can be complete without plenty of spring flowers massed for effect, commencing with the bulbs in March, and keeping up a good display till the more glowing beds of *Geraniums*, *Calceolarias*, *Tropæolums*, *Verbenas*, and *Lobelias* take their place in the summer months. Mixed borders, containing some of the finest of our showy herbaceous plants, are likewise another great feature where display is wanted early, and these seem to be wanted in the new garden.

ANOTHER COUNTRY F.R.H.S.

THE DOUGLAS FIR.

THE great value of this tree for commercial purposes is now fully established, and we may pronounce it the most valuable timber tree, as a Conifer, and probably in a general sense, we have. We wish to draw the attention of planters to this fact, and also to our large seedsmen, for we cannot but suppose that the forests of Vancouver's Island and British Columbia will soon be ransacked for seed of the most valuable tree in the world, and we shall soon hope to see young plants advertised by the thousand. We have abundant evidence before us of the rate of growth in Britain, which fully exceeds by one-third either the Spruce Fir or Larch. There are trees now growing 70 feet high, and only thirty years planted, with a proportionate bulk of stem. Those who have seen with what immense vigour the tree grows among the *débris* of the slate rocks of North Wales, even up to their very summits, will at once perceive how adapted it is to all elevated situations, where even the Spruce would not grow, as there are thousands upon thousands of acres in Wales, the north of England, and Scotland, which would suit the growth of this tree admirably, and giving large profit in return for planting, besides clothing the now naked rocks with plantations of the richest verdure.

R. I. F.

GOLDEN HAMBURGH GRAPE.

A SHORT time ago there was some correspondence in the *Gardeners' Chronicle* on new Grapes. Among others was an article signed, I believe, by a Mr. Cramb, in which the Golden Hamburg was recommended as the best white Grape in cultivation, an assertion which, I should think, would require to be well supported to be believed; for generally those who planted that Vine find they are obliged to replace it with other varieties, after losing several seasons in proving a sort that is not worth planting.

I have had an opportunity of seeing it every season since it came out, and in every instance it has proved worthless.

As a pot Vine I have grown it and treated it in every way the same as Black Hamburg. The latter produced a splendid crop, while the Golden showed scarcely a bunch; and the few that were on the Vines shanked, and dropped before ripe.

In a house of Black Hamburgs, which ripened this season the first week

in May, there were two Vines of Golden Hamburgh, on which there was not a bunch fit for table if they had ripened, and the few Grapes they bore dropped before ripe; while the Black Hamburgh was fine in both bunch and berry.

In a house of mixed Vines, ripe the 1st of June, two Golden Hamburghs failed exactly as in the last case; and in a house of Muscats, ripe the middle of July, and very fine, the Golden Hamburgh dropped its berries the same as in the other houses. The Vines in all the houses are planted inside and confined to inside borders, and from their appearance have been well managed. A large house of Hamburghs just ripe, is in all respects as fine a house of fruit as I have seen for several years, with the exception of two Vines of the Golden Hamburgh, which are to be cleared out. This is only one of many cases that have come under my own observation, and I do not know a single case in which they did satisfactorily.

Another peculiarity of this Vine is, that it is generally smothered with red spider, while the other Vines in the same house are free from it. This, of itself, makes it rather an undesirable companion, even if it were not otherwise worthless.

Perhaps some of your numerous correspondents will favour us with their experience with it, which, if more favourable, I shall conclude there is some secret required in the growth of it, which many are ignorant of, myself among the number.

S. T.

THE NEW GRAPES.

DURING the last few months there have been two seedling Grapes introduced to the notice of the Fruit Committee of the Royal Horticultural Society, which promise to take a position among the permanent cultivated varieties. Both of these are natives, and owe their origin to two of our first professional gardeners. Strangely enough, they are both from the north side of the Tweed, and if we are to judge of them as we do of the other natives of that region, we may expect them to be of a hardy and enduring constitution. The first we have to notice is that raised by Mr. Melville, gardener to the Earl of Roseberry, Dalmeny Park, Edinburgh. It is a splendid black Grape, resembling in all its parts the Mill Hill Hamburgh, which is the best of all the round or Frankenthal race of Hamburghs, but it has a fine Frontignan flavour. Imagine a great, round, hammered berry of a Mill Hill Hamburgh with a Frontignan flavour, and you have the Champion Hamburgh of Mr. Melville.

Then there is the seedling of Mr. William Thomson, gardener to the Duke of Buccleuch, at Dalkeith. This is another gem in its way. It produces a bunch a foot long, and weighing 1 lb. 2 ozs. The berries are round and as yet about medium size, but by cultivation they are sure to come larger. They have a most delicious flavour, richer than that of any Muscat, being of a mixed honied and sugary character, and with the high Muscat aroma. This is a most valuable early Grape; but Mr. Thomson has not yet been able to produce it in its best condition, as it is only a seedling, and has been left as yet to take its chance in the seed-bed. When properly grown, not only will the berries, but also the bunches be very much larger than they now are. Such is Mr. Thomson's own opinion of it, and he is no mean authority in Grape-growing, that he has planted the half of one of his vineries with this variety alone. It is to be named "The Duchess of Buccleuch's."

LONICERA (? SP.) AUREO-RETICULATA.

WITH AN ILLUSTRATION.

UNDER the name of *Lonicera reticulata* the very beautiful-leaved Honeysuckle we now figure found its way to the metropolitan exhibitions, and there, both at the Regent's Park and South Kensington, it was marked by the highest award that could be given to it—a certificate of merit of the first class. The botanical *Lonicera reticulata* is, however, a Hong Kong plant, with the branches and under-surface of the leaves thickly tomentose; whilst the present plant is of Japanese origin, and the leaves are all but perfectly smooth. Mr. Standish, of the Royal Nurseries, Bagshot, by whom it has been grown, and to whom we are indebted for our figure, refers it to *L. brachypoda*, the *L. flexuosa* of Thunberg; but, in the absence of more perfect materials, we think it most advisable merely to adopt a name which indicates the golden network of its leaf-surface, which, moreover, while distinguishing it from *L. reticulata* itself, differs very little from that under which it has already appeared, and which may be retained as that of the variety when the species shall have been accurately determined.

We learn from Mr. Fortune that the plant was found by him cultivated in the gardens of Yedo. "It is," he observes, "a very beautiful creeper, and is much valued by Japanese gardeners. It produces two kinds of leaves, one single and one like the Oak. A wall covered with the plant has a very pretty appearance, and looks like a large mass of *Anæctochilus*. In this country it will probably prove as hardy as the other Honeysuckles from Japan."

The plant is one of the many fine things sent over from Japan by Mr. Fortune, on the occasion of his recent visit. As cultivated and exhibited by Mr. Standish, it forms an elegant slender climbing shrub, whose stems are, when mature, of a deep red colour, and slightly pubescent. The leaves are commonly ovate, but occasionally become sinuately lobed, and in the samples before us are about $2\frac{1}{2}$ inches long, and nearly 2 inches broad; they have somewhat pubescent stalks, and a ciliolate margin, and are smooth on both surfaces, of a bright green colour, with the veins everywhere marked out with golden yellow. Such foliage produced freely on a plant of elegantly climbing habit must be, as it proves, singularly handsome. We learn, moreover, from Mr. Standish that the midrib of the leaf becomes quite crimson when naturally grown, which must add very much to its beauty.

This variegated Honeysuckle is a plant of free habit. The examples which have been exhibited have been grown in heat in order to obtain quick development, and under these conditions have not acquired the high colouring which belongs to more naturally-grown plants; but even in this state, in which only we have seen it, the marking is singularly elegant. The plant is believed to be as hardy as *L. brachypoda* itself; and, being a free grower, is suitable for almost any purpose to which a slender hardy climbing shrub can be applied. As an ornamental pot-plant for exhibition purposes, it will, we have no doubt, be extremely useful; while for ornamental trellis-work in cold conservatories it will be no less valuable. Indeed, it may be safely used in any situation, where it can be planted to contrast with other choice climbers of slender growth. Strongly, however, as it may be recommended with our present information respecting it, its full merit must remain unknown until the extent of its growth and the degree of its hardiness have been more exactly ascertained.

We believe it is intended to send out the young plants at an early date, and we are much mistaken if they do not find their way into general cultivation. It is seldom our good fortune to present two such sterling subjects as Mr. Standish's golden-veined Honeysuckle, and Mr. Veitch's golden-banded Lily in a single issue.

M.



Lonicera (? Sp.) *aureo-reticulata*.

A WEEK AMONG THE ROSES.

A WEEK among the Roses has a very delightful sound, and truly it is so; but a journey by mail train at midnight is certainly not preferable to a mid-day express. Such a continual rumble accompanies our sleep, that the time is rather passed in a dreamy kind of doze, from which, at a very early hour, we awake, feeling more fatigued than refreshed. The cold grey daybreak reveals to us foggy meadows, and the jaded look of the inmates of the carriage. We take a peep at our blooms in the box, the lid of which we close with satisfaction, and say within ourselves, "all right." The broad daylight at length shows the approach of the great metropolis, where we soon arrive; and, notwithstanding our earnest appeal to the porters on the platform not to remove our boxes, as we prefer doing it ourselves, they seize upon them with the greatest agility—a piece of attention we least calculated upon, but which proved a source of anxiety at every change we made. Had we required their assistance we should, as a matter of course, been left to our own resources. A difficulty now arises we should scarcely have anticipated at so early an hour—the cabs are all "engaged." It is Exhibition time, and although that vast emporium does not open till ten o'clock, and it is now only six o'clock, it serves as a pretext for cabmen to extort extra fare from any poor traveller encumbered with luggage; for under such circumstances there is no alternative, time will not allow of a lengthy dispute, or an arrangement as to price. We ask in a respectful tone to be taken to South Kensington, and "promise to pay on demand" anything required. Away we go over the rattling pavement, and we tremble for our fair ones in the boxes; but it is useless feeling uneasy on that head, we must trust to fate for the next half hour. We drive through so many unknown streets, and turn so many corners, that we are at once in amaze as to our whereabouts. We suspect we are not going right, and that there is some misunderstanding with the cabman, but we are wrong in our surmises; for we soon begin to recognise familiar scenes, and at length we catch a glimpse of the eastern dome of the Exhibition. A few moments more bring us to the entrance of the Horticultural Gardens, and we hastily exclaim, "We are here at last." But, alas! Our difficulties are not so easily disposed of. We have driven to the wrong entrance, and we are informed by a passer-by, who appears to have a knowledge of things in general, but who, we suspect, was fond of a joke before his breakfast, that we should drive to door E, western annex, to which locality we immediately proceed. We are not surprised on our arrival to find this a portion of the Exhibition building. We did not discover door E, nor did we trouble ourselves to look for it. From thence we are directed further up the road which runs at the back of the garden colonnade, until we turn the corner in Kensington Gore. Here we meet with a more disheartening prospect still, for a large board with the word "Out" painted in large characters gives us little hope of admittance there. We continue our travels with the intention of trying the gardens round, when we soon arrive at something more encouraging—another board in appearance like the last, but with the inviting little monosyllable "In." We have read in the old fable-books of some one's ass laden with gold that could gain admittance everywhere, but we believe had that wealthy quadruped tried the Horticultural Gardens at seven A.M. on the 26th of June he would have experienced a difficulty he was unaccustomed to: this board proved a greater mockery than the other; for in spite of its inviting tendency the entrance was locked, and not a soul within hearing. At this hopeless crisis the fates befriended us, for an honest-looking face presents itself at the door of our cab and informs us, "that he had seen several cabs with boxes like our own go down the narrow entry we had passed." This is welcome news, and we hasten to the spot long sought. Proceeding down the entry we are met by two empty vehicles coming up, and as we are nearer to the top than they are to the bottom, we are requested to *back out*. The possibility of passing each other is ridiculous, for the road is scarcely wide enough for one. Hitherto we have followed every direction, and yielded to every request, and we think, perhaps, it would be only good policy to continue to act in the same way. We hesitate for a moment, but thinking the nearest way to the gardens would be to turn back, we reverse our engine without delay. We begin to bear things philosophically, and regard everything that happens as a joke. Having surmounted all obstacles as far as we can see, and a clear course presenting itself before us, our cabby makes a frantic dash, and we actually do arrive at last at our destination. And now with anxious steps we find our way to the conservatory, on the very threshold of which such a sight meets our eyes that we almost stagger at its splendour. Our courage sinks within us when we behold the formidable array against us; the stages are being arranged with such gorgeous blooms, and the floor is strewn with open boxes of such glowing colours, from which the various exhibitors are culling their choicest specimens. Such an "otto" pervades the whole place that we are reminded of some scene in Persia that Moore describes. Whole boxes of *Senateur Vaisse*, *Anna Diesbach*, and many others, glow in massive patches here and there, and we think the most prudent course would be to keep our *own box closed*. We, however, take courage, for we find we are amongst the nurserymen with their trebles of ninety-sixes, so we at once move on to the quarter allotted to our class. We venture at last to open our

boxes, and there, on the bright green moss, our blooms look as fresh and brilliant as our neighbours'. We had last seen them in the cold grey light of morning, but they had a very different appearance in the warm mellow light of the conservatory; they had travelled beautifully, with the exception of one or two which were none the better for the handling of the porters; but as we had plenty of duplicates it was not of much consequence. Madame Boll had received a slight scratch across her face, but Louis XIV. was evidently suffering from concussion. We arrange our stand, but have little hope of success; for just as we are leaving we find our little band so completely *Hedged-in* by a vast army from Colchester, which cruelly

"Lays our rich country waste,
And rudely crops its ripened hopes
Of fair prosperity."

Such an army of noble fellows we never before beheld. Mr. Beaton says they are fed on fish. Cod-liver oil we should think more probable from their size and strength. Notwithstanding our defeat, we cannot help but rejoice, for we never saw so much to charm before; and we feast our eyes upon our enemies with such rapture that we forgive them from our heart. It is no discredit to be vanquished by such a foe. What unborn beauties are yet concealed in embryo we know not, but these we think can never be surpassed.

We squeeze through the crowd and continue our feast from box to box. We see all that is possible to see, but the forlorn hope of seeing all is very apparent after two such barricades of crinoline that defy all force, were we rude enough to use it. Another great hindrance also to the company having fair play, is the monopoly of certain individuals who persist in hanging over any particular box of interest, with book in hand, writing notes and taking names, which, were they expeditious in their work, there could be no possible objection; but one whom we had the misfortune to get behind, and whose room we were patiently waiting for, seemed to have become a fixture for the day, without any intention of moving; the only apology we can offer for him is that he may probably have become petrified from the sight before him. There were not many striking novelties to be seen; perhaps we have been so spoilt with the abundance of good flowers the last few years that we expect too much. The sensation Rose of the Show was of course "John Hopper," which is doubtless the finest seedling of its class yet raised in this country. There are, probably, good reasons for giving it so homely a name, but we should have preferred one that would have proclaimed its birthplace more decidedly. The "Glory of England," or the Beauty of Suffolk would have reminded our French friends that it was possible to raise a good Rose in England. But why, let us ask, was it placed in the conservatory where no one could find it, and where no one would be likely to look for a novelty? Hundreds went away without having heard of the existence of "John Hopper," and those who did were so continually hopping on ladies' dresses that they saw very little of it. The only new Tea Rose worthy of notice is Gloire de Bordeaux, of the old Gloire de Dijon blood, from which, we believe, it was raised. Of the Perpetuals Duc de Rohan was fine and of good colour, Maurice Bernardin, Charles Lefevre, Mdle. Julie Daran, La Brillante, are all promising; the last two exquisite in colour. But the most remarkable Rose for colour was a bloom of Lord Raglan among the trebles; we forgot to whom it belonged, it certainly exceeded anything we ever saw for brilliancy, not even Evêque de Nîmes excepted; and had it not been for its shape we should almost have questioned his lordship's title. Another singular whim of Nature we witnessed in a bloom of "The Comtesse" in Mr. Cant's box, which was prettily striped with a deeper shade of pink; it was a lovely flower though not legitimate. These sports, we think, are becoming more frequent. We lately had a bloom of the "Senateur" with such a mottled visage that we should scarcely have recognised him as our Perpetual King. Our old friend Charles Lawson was very conspicuous in many stands, he had certainly put on his court dress for the occasion; we never saw him finer. Anna Diesbach also made a great dash, and wore her largest crinoline; it is a pity there is so much outside show about her: nevertheless she is very beautiful and her complexion lovely.

This great Rose festival at an end, the "Midland" next occupies our thoughts; but we can take this on our way home. In the meantime we turn our steps to Kew and Hampton Court, at which latter place we revel in beds of Devoniansis and Malmaison, and find much else to delight us. Kew boasts more in its houses of choice exotics, and its "bedding-out" is far superior to anything we have seen elsewhere. The arrangement of colour is perfection, and it must be a very fastidious critic indeed who has a fault to find at Kew.

The eve of the "Midland" finds us on our way to Birmingham; and as we loiter on the morrow through its streets of smoke and dinning manufactories, we have little to remind us of anything so fair and pure as our queen of flowers. But however few the associations of so beloved a lady, we are verily and in truth close to her royal court; and such a grand reception is there being held which was never before known out of the great metropolis. We enter this floral palace, for it is worthy to be called so; again we recognise our dear old favourites fresh, glowing, sweet, and beautiful.

A first and great success is this "Midland Show," there cannot be two opinions in the matter. Such a display in a provincial town was never seen before; for not only were all the finest blooms of the midland counties brought together at this great fête, but everything that could delight a floral mind and taste, from the classic vase to the rustic garden-seat, were there assembled. One thing, and one thing only, we thought a little overdone. The strains of that mighty organ were at times rather more powerful than we could wish. It is a great addition to have something of the kind, and when played a little less *forte* is most agreeable, and we might then be able to converse with our friends without doing violence to our lungs; but when the full power of so magnificent an instrument is at play, we can only compare it to sudden bursts of thunder in the room, and we should not be surprised to find some of the looser-petalled Roses shaken to the centre by the vibration, and their eyes becoming visible to the great discomfort of the exhibitor.

There were so many stands of lovely blooms that we constantly found ourselves repeating our visits to them. Mr. Cant's were truly splendid, and so also were Mr. Reynolds Hole's. Mr. Cant's Colonel de Rougemont was most remarkable for size, shape, and colour, and looked like a full moon in the midst of a constellation; for truly his flowers were stars of the first magnitude. Mr. Hole's Madame Furtado and Louis XIV. were also glorious specimens; indeed his forty-eight-stand was a show in itself, and we could scarcely make up our mind to take a last fond look. We lingered late over them till the crowd came in the evening, and we felt it selfish to remain longer. There were blooms of the new Rose, "Reynolus Hole;" a lovely cherry pink is as near to the colour as we can describe it, but we thought the name rather out of place when we looked upon the original. Titania we may suggest as being more appropriate; and the worthy gentleman himself would be better represented in such flowers as Charles Lawson or Anna Diesbach. The new Tea Rose *l'Enfant Trouvé* was exhibited with portrait, but we think it would have been more judicious not to have placed the portrait in such close proximity to the original—not that we wish to speak lightly of the "Foundling," for we think it a great addition to our "Teas," but we have not seen it so magnificent as represented. We have lately purchased one from under glass, from a local nurseryman, that was most beautiful, and with finer blooms than any we have seen exhibited. How it will rough it out of doors remains for us to see; but we are much disposed to have a good opinion of it. Of all the Roses of recent introduction the following we think have proved to be the cream:—Louis XIV., Madame Charles Crapelet, Sénateur Vaisse, Madame Furtado (Mr. Cranston's were superb), Gloire de Santenay, Catherine Guillot, and Victor Verdier. But we must hasten to our journey's end, for another little engagement awaits our return which we have quite as great an interest in as these great "All England" meetings. We must rally our little band once more, and meet opponents less formidable than the Philistines from Colchester. As our week draws to a close we find ourselves busy in our own rosarium, and the Roses all we can desire. The day of exhibition brings us again into the field of action, and our tour which commenced so ingloriously now ends in triumph. And now that all is over we collect our scattered thoughts, together with other untidy things strewn about the Roses, for shading and retarding add little to the neatness of a garden. This done, and the place once more put straight, we again begin to fiddle with our favourites, think on all we have seen and heard, and endeavour to profit by "Our Week among the Roses."

R. T. E.

THE METROPOLITAN EXHIBITIONS.

ROYAL BOTANIC SOCIETY, *July 9th*.—Here, in the large collection of Stove and Greenhouse plants, Mr. May and Mr. Milford came to the front rank, and Mr. Whitbread and Mr. Baker retired to the second position. It is useless to particularise, as the varieties were those at South Kensington. The other exhibitors of stove and greenhouse plants, Orchids, and fine-foliaged plants were just about the same as at the Horticultural Society. Mr. O. Rhodes had ten well-flowered plants of Cape Heaths, and took first prize; Messrs. J. Jackson & Son being second. Mr. B. Peed, gardener to Mrs. Tredwell, Norwood, was first with eight varieties; Mr. Page, gardener to W. Leaf, Esq., being second. With six varieties Mr. Chillman, gardener to Mrs. Smith, Epsom, was first; and Mr. Wheeler, gardener to J. Philpott, Esq., second. Mr. B. S. Williams was first with twelve exotic Ferns, and Mr. H. Lavey, gardener to E. A. De Grace, Esq., with twelve British species. Mr. Cannell was again first with six Fuchsias, remarkably good plants—viz., Prince Alfred, Wiltshire Lass, Madame Cornelissen, Little Bopeep, Sir C. Campbell, and Guiding Star. Second, Mr. Garden, gardener to J. Stutter, Esq., with Rose of Castille, Lord Clyde, Little Bopeep, Wiltshire Lass, British Sailor, and Venus de Medici.

Pelargoniums were still very good and showy, and as usual a great centre of attraction. With ten varieties, Mr. Bailey, Shardeloes, was first, having Lord Clyde, Guillaume Severyns, Monarch, Glowworm, Sanspareil, Desdemona, Picnic, Etna, Lady Canning, and Fire Queen.

No other aspirant disputed his possession of the medal. Mr. Turner was first with the following twelve varieties:—Lord Clyde, Desdemona, Argo, Princess Beatrice, Bacchus, Rembrandt, Leviathan, Lucifer, Beadsman, Guillaume Severyns, Ariel, and Perdita. Second, Messrs. Dobson & Son; third, Messrs. J. & J. Fraser. The latter were first with six fancy kinds, having Delicatum, Bridesmaid, Musjid, Multiflora, Rosabella, and Clara Novello. Second, Messrs. Dobson and Son. In the Amateurs' class for the same number, Mr. Shrimpton was first with Electra, Negro, Delicatum, Madame Sontag, Acme, and Rosabella. With six large Pelargoniums, Messrs. Dobson & Son were first, having fine plants of Governor General, Madame Furtado, Monarch, Sanspareil, Saracen, and Viola. Three or four groups of Scarlet Geraniums were staged. The greatest interest was concentrated on the class for six varieties of 1860-61, Mr. Turner being first with Norma, light salmon rose, dark top petals and white centre, a fine exhibition flower; Modesty, pure white, with crimson blotch; Celeste, bright carmine, lower petals stained with crimson, white throat; King of Spots, a rich dark spotted kind; Gaspard, deep lilac rose, a fine exhibition flower; and Beauty of Reading, dark crimson stained, dark top petals, and white centre. Messrs. Dobson & Son had Byron, pale lilac, lower petals stained with crimson, and dark top petals; Queen of England, pure white, with carmine blotch, very free; Mr. Sowerby, salmon rose streaked with carmine, dark top petals; Perdita; Review, a dark spotted variety, but wanting form; and Victory, bright scarlet.

Splendid boxes of Cut Roses were shown on this occasion. With fifty varieties, Mr. Cant and Mr. Francis were equal first, Mr. Mitchell second, and Messrs. Paul & Son third. Mr. Morris, gardener to Miss Crawshay Caversham Park, was first with twenty-five varieties. Second, Mr. J. Hollingworth, Maidstone. Third, Mr. G. F. Bush, Norwood. In these two classes three trusses of each variety were shown. With twenty-four varieties, single blooms, Mr. Cant was first, and Mr. Turner second. With twenty-four varieties of Pinks, Mr. Hooper, of Bath, had the race to himself; and with thirty-six Pansies, Messrs. Downie, Laird, & Laing were first with a fine stand; Mr. Hooper being second. With twelve varieties of Pinks, Mr. August, Beddington, had no opposition. In the classes for seedlings were some pretty Petunias from Mr. Bull, Chelsea; Phlox Garibaldi from Messrs. Fraser, a finely-formed pure white with crimson purple centre; a new dwarf bedding Calceolaria from Messrs. Downie, Laird, & Laing, very dwarf, with short stiff foliage, and throwing large trusses of yellow flowers, a fine and continuous bloomer.

Yearling seedling Pelargoniums came from Mr. Wiggins, gardener to Mrs. Beck, Isleworth, and included some promising flowers. The most striking were Scopus, a light salmon rose; Peep o' Day, soft lilac rose with dark top petals; and Agathos, light salmon rose with conspicuous white centre, a flower of great promise. Mr. Holland, of Hounslow, had seedling Petunia Crimson Gem, a large glowing crimson of fine form. Mr. George Smith, of Islington, had Fuchsia Dandy, a large purple double-corollaed variety of close vigorous habit, and blooming freely; and Sanspareil, a large white-corollaed variety, evidently a free-flowering kind. Mr. Parker, of Tooting, had Euphorbia atrosanguinea, with bronzy crimson foliage, quite ornamental; two large pots of Lobelia erinus speciosa major, with large dark purple blue flowers, having a conspicuous white eye, and being very showy; Centaurea argentea; a variegated Hibiscus; Musa coccinea, in flower; and a splendid Alocasia metallica. Messrs. A. Henderson & Co. had some fine specimen Caladiums; and Mr. Bull large specimen new plants, among which were Cyathea dealbata, Alsophila australis, and Cibotium princeps, three fine ornamental Ferns for conservatory; Payetta borbonica, Musa vittata, Cordyline indivisa, and the variegated Yucca Stokesi. Messrs. J. & C. Lee, of Hammersmith, had a finely-grown plant of Sphaerostema marmorata, the leaves of which had nearly lost the handsome marbled variegation peculiar to it; a fine Cordyline indivisa, and a huge Musa vittata. Among Messrs. J. Jackson & Son's group was a fine Alocasia macrorrhiza variegata, named Calocasia by Mr. Bull. Messrs. Veitch & Son also had Caladium rubro-nerva, like C. picturatum, but having pure white blotches; Mutisia decurrens, a hardy climber from the Chilean Andes, with orange-coloured blossoms (figured in the FLORIST and POMOLOGIST for June), and their white-blossomed Lapageria. Mr. Thompson, of Ipswich, had his new Rhodanthos, to which he added R. alba, a pleasing white variety of R. Mangiesi. Mrs. Carstairs, of Edinburgh, had Calceolaria Earl of Rosslyn, a dark, half-shrubby kind. And Mr. Wyness, the Gardens, Buckingham Palace, had an ill-formed light Fuchsia named Novelty, that has the peculiarity of throwing its flowers almost erect.

The show of Fruit was extremely good, and the tables were very much crowded during the day. Mr. T. Dawson, of Peshanger was first with a miscellaneous collection, consisting of two Queen Pines, Black Hamburg and Sweetwater Grapes, Black and White Cherries, Sir Harry and Oscar Strawberries, and some fine Galand Peaches. Mr. G. Tillyard, Stanmore, was second. With a collection of four or more dishes, Mr. Ruffet, Brompton Hall, was first with Peaches, Grapes, Cherries, Figs, Nectarines, and Strawberries. Second, Mr. Young, Leigh Park, Havant. Splendid Pines came from Mr. Barnes, of Bicton, and Mr. Young, of Havant; the former had Prickly Cayenne, copper-coloured Montserrat,

Smooth Cayenne, and Brown Antigua. Mr. Robinson, gardener to R. Benyon, Esq., Reading, was first with a Providence Pine. Second, Mr. R. Smith, of Liverpool. With a fruit of Queen Pine, Mr. Williams, of Whitehaven Castle, was first; and Mr. Robinson and Mr. Tillyard equal second. A good quantity of Melons were staged, both large and small; many of them were unnamed. Prizes were offered for Green and Scarlet-fleshed varieties. Mr. Bailey was first with a King's Green-flesh, and Mr. Tegg second with one of a similar character. Mr. Bailey was also first with Scarlet Gem. Mr. Hill, gardener to R. Sneyd, Esq., was first with three bunches of Grapes—viz., Black Prince, Buckland Sweetwater, and Black Hamburg. Second, Mr. J. Embery, gardener to A. Moss, Esq., with Muscat of Alexandria, Cannon Hall, Muscat, and Black Hamburg. With 12 lbs. weight, Mr. Henderson, Coleorton Hall, was first with Black Hamburgs; second, Mr. W. Mead with the same—both very fine and well ripened. Single dishes of Black Hamburgs, Black Prince, and West's St. Peter's, were also shown well, as well as White Muscats, there being splendid examples of the latter. In the classes for new Grapes, Mr. Standish had "Gros Colmar," having very large black berries; it will hang a long time after it is ripe. Mr. Constantine, of Hillingden, had a white-berried variety named "Cavoush," stated to be a free grower, coming in a little later than Black Hamburg, and succeeding in nearly the same temperature. The finest Peaches were Royal George and Galande; and there were also fine fruit of Elruge and Violette Hâtive Nectarines. Mr. J. Monroe was first with two dishes each of Peaches and Nectarines, and Mr. S. Snow, Wrest Park, with one dish of each. Mr. Tillyard had a dish of Plums, Mr. S. Snow a dish of Figs; and Cherries came from several exhibitors. Mr. T. Bailey and Mr. Turner were both first with four dishes of Strawberries; Messrs. Lydiard, of Bath, and Tillyard also showed in this class. There were fine fruit of Frogmore Late Pine, Rifleman, Oscar, Sir C. Napier, Sir Harry, British Queen, Wonderful, and Eleanor. Mr. Ingram, of Frogmore, also had a box of his seedling Strawberry John Powell.

The report of the June Exhibition here should have contained a few words respecting the fine exhibition of Rhododendrons contributed by Mr. John Waterer, of Bagshot. When seen the first week in June they were at their best, and well repaid a visit. A tent filled with Belgian Azaleas of all shades of gay colours, from snow white to crimson, was the avenue of approach to the American tent, filled with the choicest specimens of this splendid flower. There was the most delicate blush tinged with elaborate pencillings; and then came increasing depth of colour, till were seen vivid crimson flowers that glowed with a brilliancy of colour, to which the subdued light of the monster tent seemed to impart a richness a brighter glare would have neutralised. All is over now till next season—a farewell to the exhibitions at the Regent's Park.

Quo.

AN AMERICAN PEACH ORCHARD.

THE 23rd August being a clear fine day, such as we consider in this country, seasonable, thermometer about 90°, I took the steamer early in the morning from this city to Alexandria, seven miles farther down on the opposite (Virginian) shore. The sail was delightful and refreshing, the noble river being calm and placid, whilst the scenery on its banks was ever beautiful. Arrived at Alexandria, I again recrossed the river to the Maryland shore, when, after a drive of about two miles, I reached the residence of my friend, Dr. John B. Kirby. The house is on a moderate hill, the ground, from which gently undulates into the valleys on either side; from it were enchanting views of the majestic Potomac meandering to the ocean, the scenery on whose banks was most enchanting; but I must not digress too much. But to return to the object of my visit—an inspection of his Peach orchard. The latter stood on the sloping ground, west and north-west of his house, and must contain several thousand trees. On entering this orchard I am free to say that I considered the view before me one of the most beautiful my eyes ever rested upon in the way of fruit. Readers, you who have seen superb Peaches grown on the garden walls of Old England, trained, pruned, or attended with care, or it may be some Peaches grown in pots or in Peach-houses, stand with me for a moment in imagination on the elevated ground in the orchard, and look down upon its thousand trees fairly breaking, splitting under their weight of luscious fruit. Here are trees bending under their weight of golden fruits; these are Melacoton or yellow-fleshed Peaches. In front of us are trees bearing fruit, with cheeks of brilliant crimson; these are white-fleshed Peaches, both freestone and cling, as George the Fourth, Old Mixon, clings. And on the other side are varieties that have not attained maturity; some are clings, as White Heath, Large White Clings, with the late freestone Peaches, as Smock's Free, Reeve's Late, &c. The reader will bear in mind that this region is eminently a land of Peaches. True it is that Peaches are largely grown in some of the Northern States. New Jersey has long been celebrated for its crops of this fruit shipped to New York and Philadelphia; but the fruit is not so fine as what are grown in the States south of it. Delaware, Maryland, Virginia, and North Carolina are

celebrated for fine Peaches, as well as the Cotton States. The small State of Maryland is probably as fine a Peach and other fruit-growing a State as any in the Union. If the young gardener in England who reads this, turns to the East and notes the latitude from which this fruit originally comes, he will not be surprised at its success in the same latitude in its Western home. Nature has profusely blessed us with this and other fruits; but where Nature is liberal, man is apt to be neglectful: hence the inferior fruit often seen in this country. A planter wishes to plant a Peach orchard. He purchases his trees, digs small holes into which the roots, it may be, are crammed. Most probably the first year or two he sows Wheat or Oats between his trees. The second year the trees come into bearing; the fruit is never thinned, and as fruit will set on the branches, to use an English phrase, as thick as "traces of Onions," need we wonder if the fruit is small or inferior, and that after three or four years bearing they should sink into premature decay—more especially when they receive no pruning whatever?

But to return to the orchard of our friend. It is apparent at a glance its treatment has been different. The common practice in this country is to trim this and other fruit trees up as standards—a practice we borrowed from England, without considering the difference between their humid climate and our hot dry one. Dr. J. B. Kirby, like other good cultivators among us, has low-headed trees. His practice is, on purchasing trees, to take yearlings (maiden trees). These were planted about 18 feet apart each way; they are then headed down to about 2 feet or $2\frac{1}{2}$ feet; from this point the head of the tree is formed. The branches at first are properly pruned or stopped, as the case may be, to give the head a proper form. Each spring the trees are looked over to regulate, shorten, and thin out the branches. The fruit, as soon as set, has been properly thinned: hence the fine fruit we have been feasting upon. All these operations are easily performed. The trees are low-headed, and nearly all the branches can be reached from the ground.

I have already spoken of the beauty of these Peaches: every tree was laden—the ground strewed with the finest fruit. I have seen and eaten luscious Peaches in the south and west of England, where this fruit is truly fine; but never have I seen such large and luscious Peaches as in this orchard. To give an idea of the quantity produced, the proprietor informed me he sent his first waggonload to market on July 23rd, after which he would send three weekly until from 1st to 10th October. Freestone white-fleshed Peaches are largely grown, among which the following were conspicuous:—Baltimore Beauty, Cammack's White, Cooleidge's Favourite, Druid Hill, Hain's Early Red, Early Tillotson, Early York, George the Fourth, Harker's Seedling, Red Rareripec, Morris White, President, Walter's Early, Ward's Late, Free, &c. Among the yellow-fleshed varieties the following were fine:—Bergon's Yellow, Crawford's Early and Crawford's Late, Melacoton, Reeves' Late, Smock's, Scott's Nonpareil, Susquehanna, &c. This class of Peaches is but little known in England, as it requires our hot climate to bring them to perfection: they are most delicious. Clings were equally fine, having among others the following:—Bronaugh, Heath, Large White Cling, Lemon Cling, Magnum Bonum, Newington, Old Mixon Clingstone, Rodman's Cling, Tippcanoe, &c. If the yellow-fleshed are but little known in England, these are still less, as they require our burning summers to bring them to maturity. When well ripened they are superior to either of the other classes, being more juicy with a honied lusciousness; indeed, I know no Peach more beautiful to the eye or grateful to the palate than a well-ripened "Old Mixon Cling." I was about to put it at the head of all Peaches. What a pity you cannot ripen these in England! The ground on which this orchard stood, would in general be considered poor, being of a sandy, gravelly nature, and would scarcely bring a good crop of grain. When the trees were planted, it received no particular cultivation other than a good ploughing: nothing was grown among the trees, the ground between which received one or two light ploughings each season, and during summer the weeds were kept down, and the soil loose and mellow by the use of the horse cultivator, all of which is very necessary in this climate. When other crops are grown among trees they never succeed.

Peach trees in this climate should not be planted in too rich or strong a soil. In such as I have described they succeed best, and with the little attention I have remarked will give the finest of Peaches. This fruit tree is short-lived here, to prolong which it has been recommended to bud it on the Plum. My experience will not, however, permit me to endorse this, as the soil on which the Peach succeeds best is too hot and roasting for the roots of the Plum, which delight in a heavier soil and cooler bottom. There is no stock like its own raised from hardy seedlings—none so conducive to its health and vigour. I can see no objection to its short life, when it is considered how cheaply trees can be purchased at present—about sixty dollars per thousand (£12), and the rapidity with which they come into bearing. Young, vigorous trees give the finest fruit, much better than to crop them for five or six years, and when they show symptoms of decay destroy them, having another orchard ready to succeed them. A disease called the yellows has been very fatal to this tree in many portions of the country—such as New Jersey and other parts of the north. Unfavourable soil, climate, and bad culture appear to be the cause. In this region, the district of

Columbia, &c., it is unknown. The extent to which this fruit is grown in summer of our States would appear almost incredible. A great many orchardists in Maryland and Delaware contain from 30,000 to 40,000 trees, and the proprietors employ steamers during the season to carry their produce to the markets of New York, Philadelphia, Baltimore, &c. After a day's feasting on Peaches with my friend, I returned by same route in the evening to the federal city.

Washington City, D.C., U.S.A.

JOHN SAUL, Nursery and Seedsman.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 74.)

ACER POLYMORPHUM var. *RUBRO-VARIEGATUM*.—Mr. Standish, Bagshot: Silver Knightian Medal, July 2.—A very elegant Japanese tree. The leaves are palmate, with lance-shaped serrated segments, green, prettily variegated with bronzy red.

ACER, sp.—Mr. Standish: Silver Banksian Medal, July 2.—A Japanese tree, apparently a broad-leaved form of the foregoing, having the leaves purple variegated with rosy red.

ACER, sp.—Messrs. Veitch & Son, Exeter and Chelsea: Bronze Medal, July 2.—A Japanese tree of elegant aspect with green dissected leaves, and evidently the green-leaved form of the following variegated-leaved variety. It is probably *Acer dissectum*.

ACER, sp.—Mr. Standish: Silver Banksian Medal, July 2.—A very elegant Japanese tree, with the leaves tripinnatifidly dissected into narrow segments, and variegated with several shades of pink.

ADIANTUM CHILENSE.—Messrs. Veitch & Son: First-class Certificate, May 6.—A fine, hardy, bold-looking, greenhouse Chilean Fern, with tripinnate fronds of triangular outline, and of a glaucous green colour; the pinnules rather large roundish trapeziform. It seemed to be of free habit.

ADIANTUM SCABRUM.—Messrs. Veitch & Son: First-class Certificate, May 6.—A Silver Maidenhair Fern, in which the fronds are bipinnate with roundish pinnules, dusted over thinly on both surfaces with white farinose powder. It is from Chili.

ADIANTUM SULPHUREUM.—Messrs. Veitch & Son: First-class Certificate, May 6.—A Golden Maidenhair Fern from Chili, dwarfish, and remarkably neat and elegant in habit. The fronds triangular, tripinnate, with small pinnules of a roundish form, conspicuously scalloped out at the edge where fructified, and clothed on the under surface with yellow farinose powder.

ADIANTUM TINCTUM.—Messrs. Veitch & Son: Bronze Medal, July 2.—A slender elegant bi-pinnate Fern, with broadish pinnules, introduced from Peru, the younger fronds of which are strongly tinged with rosy red, which gives the plants a very pretty appearance.

AEKIDES HYBRIDUM.—Messrs. Veitch & Son: First-class Certificate, June 11.—A cross between *A. Fieldingii* and *A. affine rubrum*, producing deep rosy-tinted flowers in the way of *roseum*.

ALOCASIA ZEBRINA.—Messrs. Veitch & Son: Silver Knightian Medal, June 11.—A very fine stove Arad from the Philippine Islands, introduced by Mr. J. G. Veitch. It is of stout, bold habit, and has broadly sagittate, green, erect leaves on stout erect stalks, which are mottled and banded with dark green on a pale ground, so as to become snake-like in marking. It is both curious and handsome.

AMARYLLIS UNIQUE.—Mr. Williams, Holloway: First-class Certificate, March 19.—A seedling from *A. Ackermanni pulcherrima*, with handsome flowers of extra fine form, the perianth segments being remarkably broad, deep brilliant scarlet, with a dark shaded centre and white markings.

ANTHURUM SCHERZERIANUM.—Mr. Wendland, Hanover: Bronze Medal, July 2.—A curious little pothoid stove plant of rather striking character, having stalked leaves with a lanceolate-oblong blade, and a scape of 6 or 8 inches supporting the inflorescence, which consists of a plane ovate scarlet spathe turned downwards against the scape, and a small curved spadix of the same colour.

(To be continued.)

CALENDAR OF OPERATIONS.

CONSERVATORY.

Give an abundance of air night and day as long as the weather permits; and as the plants will now require all the sun they can get to mature their growth,

discontinue shading. Water when necessary. About the middle of the month make preparations for housing the plants, but if the weather be fine they are best out of doors. Before the plants are taken in,

the house should be thoroughly cleaned, and any painting, glazing, or other work that may be necessary should be completed.

GREENHOUSE.

The principal work to be here attended to is to get the plants into their winter quarters. The houses should be thoroughly cleaned first. Begin with the more tender and choicer kinds about the middle of the month: the hardier sorts may remain out of doors until the end of the month if the weather be fine. See the pots are well washed, and the plants neatly tied before they are housed. Avoid crowding the plants; each one should have sufficient space for the air to pass freely around it. When the plants are housed give all the air possible both by night and by day, reducing it only when unfavourable weather renders it necessary. Attend carefully to the waterings. Plants that are in small pots, and that have plenty of roots, when housed and placed on stages or shelves dry very rapidly, owing to the thorough circulation of air to which they are exposed.

STOVE.

The principal thing requiring attention here, is the maturing the growth of all tender plants; to facilitate this, much less water should be given than hitherto, and in fine weather all the air possible should be given. The specimen plants that have done flowering should be cut over, and carefully examined for insects, which are generally very troublesome at this season. Give the young growing plants plenty of room. Fire heat will not yet be necessary, but it will be well to close-up the houses early in the afternoons.

FLOWER GARDEN.

The greatest attention will now be required to keep everything in the best possible order, so as to keep up the present beauty and appearance of the flower garden as long as possible. The turf, gravel, and edgings of all kinds will require almost constant attention. Pick-off daily all faded flowers and dead leaves; remove all rambling and straggling growths, and secure well all climbers and tall-growing plants, as Hollyhocks, Dahlias, &c., to prevent them from being injured by the winds. Continue to put in cuttings of all kinds of "bedding plants," but the sooner all kinds of Geraniums are in the better. Verbenas, Calceolarias, and similar things will do well later, though it should not be put off too late, as a night's frost would be fatal to many. Rooted cuttings of Phloxes and other herbaceous plants should now be planted-out, also seedling Hollyhocks. *Pleasure Grounds*.—All large evergreens may be safely transplanted any time during the month. Leaves will now begin to be troublesome. Keep the grass and walks well swept and rolled. Cut the grass with the machine in dry weather.

FORCING.

FRUIT.—*Pine Apples*.—As soon as all the summer fruit are cut, the house should be got ready for the plants that are to bear fruit early next year. The plants for this purpose ought to have had their final shift in July, and should now have the pots well filled with roots; on this account the bottom heat should not exceed 85°. Autumn fruit will now require liberal supplies of water, a tolerably moist atmosphere, and a temperature by night of at least 70°, and by day 80° to 85°, with an increase of 10° or 15° by sun heat. Give air freely in the forenoons, but close-up soon in the afternoons; this will save fire heat, which will not yet be necessary unless the nights be very cold. The succession plants will now be making rapid, vigorous growth, and should have a liberal supply of water and an abundance of air, especially in the forenoons. See the bottom heat is regular, and does not vary much either above or below 85°. The night temperature should not get below 65°. *Vines*.—The early forced houses should still be at rest. Prune that intended to be started next month. Ripe Grapes keep cool and dry. Slight fires are indispensable for all late crops; abundance of air must be given. Grapes ripened by the end of the month will be everything in flavour and quality that the most

fastidious palate can require, and with proper care and attention they will keep so until March. Late Grapes ripened without fire heat and with little ventilation will be deficient in flavour; and in a sunless season like the present, the wood and buds will be soft and imperfect, and assuredly lead to disappointment another season. *Peaches and Nectarines*.—The early-houses should now be in a state of perfect rest; remove the lights off the late-houses, so that the trees may have full exposure to the weather. *Figs*.—When the fruit are all gathered, syringe the trees well; give plenty of air, and no more water than is absolutely necessary. *Cherries*.—As these are all plunged they will not require any watering after this; they should now be left to go into a state of rest. *Strawberries*.—These should have the greatest attention now. Give them liberal supplies of water, and pinch-off all runners. If we now get good, strong plants, with well-formed crowns, the forcing will be a very easy matter. If you do not get good plants now, better not to attempt forcing, for it will only disappoint. *Cucumbers and Melons*.—Spare no pains to keep all the bearing plants as healthy as possible. See they have sufficient bottom heat; water when necessary, and give plenty of air in fine weather. Late Melons do best on trellises. Late Cucumbers must have plenty of heat and air, water when necessary, and the shoots must be kept well thinned-out.

HARDY FRUIT.

Peaches and Nectarines.—Go over the trees, and stop and nail-in any shoots that require it. Remove any leaves that shade the fruit. Attend to gathering the fruit as it ripens. *Apricots*.—Pinch-back and nail-in shoots. *Plums and Cherries*.—Protect from wasps and birds. *Pears and Apples*.—Gather as they arrive at maturity. The greatest care and attention is required in gathering fruit for keeping. Go daily over the trees, and gather only as they ripen. All fruit should be laid singly on shelves in the fruit-room, which should be cool and dry. *Strawberries*.—Young plantations may still be made. If not already done, all the runners on the bearing plants should be cut off and cleared away, and a good dressing of rotten dung put around the plants will be of great advantage to them.—M. S.

KITCHEN GARDEN.

Encourage the growth of all kinds of vegetables by frequently hoeing and stirring the soil between them. Attend regularly to the earthing-up of Celery in dry weather. Take up Potatoes, and store away when dry. The winter Spinach sown last month should be well thinned-out. When Onions are fit they should be pulled, dried, strapped, and hung up in a cool, airy place, where they are safe from frost. Plant a good breadth of Cabbages for spring use. *Cauliflowers*.—Prick-out into frames and in sheltered places to stand over the winter. *Lettuces*.—Plant on warm borders at the foot of south walls and other sheltered places. *Endive*.—Tie-up to blanch. Peas, Beans, and all other vegetables done bearing clear away, and either dig and fresh plant or ridge the ground. *Late Turnips*.—Continue to thin and hoe. *Herbs*.—Cut and dry if not already done. Autumn weeds are difficult to get rid of, especially in wet weather. Nothing but unceasing perseverance in hoeing and cleaning will keep them down.—M. S.

Roses in Pots.—There is little to do at present among Roses in pots. The plants forced early will be all but at rest; from them water should be withheld, or, even better, the pots should be lifted from the ground and laid on their sides under a north wall, or in some other shaded situation. Later plants still growing should be looked over, and if any gross shoots are discovered pushing from the base or any part of the plant, destroy them, if the plant is already sufficiently furnished with good shoots; but if the plant is thin or ill-balanced, they may be let grow to any given point which may appear desirable, and then be stopped. These late plants must still be watered occasionally, and be kept free from aphids and mildew by the usual appliances. If the flowers here produce are not wanted, pick them off in the bud state.—WILLIAM PAUL, Nurseries, Waltham Cross.



1 *Rhodanthe Maculata*. — 2. *Rhodanthe Atrosanguinea*.

NEW RHODANTHES.

WITH AN ILLUSTRATION.

THE two plants we now figure, rank, we think, among the finest of the additions which have lately been made to the class of half-hardy annuals. Compared with the old *Rhodanthe Manglesii*, it will be seen that the new ones are, the one much larger and finer coloured, and the other quite distinct in character. Hence, as both are highly ornamental, we doubt not both will become popular flowers.

We are indebted to Mr. W. Thompson, of Ipswich, by whom they have been introduced from Western Australia, for the specimens figured. Mr. Thompson will, we believe, be in a position to let out one or both of them next season.

RHODANTHE MACULATA (*fig. 1*), is that which in general habit approaches most nearly to *R. Manglesii*; but it differs in being larger and stouter-growing, in having the leaves more round than oblong, and wholly green with scarcely any perceptible glaucous tinge, in having the flower-heads about twice as large, and in having the inner series of the ray-like involucreal scales, which are of a rosy pink for the greater part of their length, stained at the base near the disk with a deep sanguineous blotch, to which the name *maculata*, given to it by its discoverer Drummond, the veteran Swan River botanist, bears reference. The plant is erect-habited, branching upwards, bearing broad, roundish-oblong, amplexicaul green not glaucous leaves, each terminating in a small recurved point. The bracts are leafy throughout the inflorescence. The flower-heads are large, the dry involucreal scales having an expansion of about an inch and a half, and surrounding a yellow disk. The scales are toothed at the tip; the outer ones silvery and transparent; the inner ones in several series, striated, rose pink, marked at the base with a crimson blotch, which is stained in the centre with a darker sanguineous hue. The yellow disk is, consequently, surrounded by a two-coloured deep crimson ring, exterior to which is the broad rose-coloured ray. The "buds" are pendent, while the matured flower-heads take a horizontal position. These memoranda, aided by a reference to the figure, will show what a beautiful thing this *R. maculata* is. Whether, therefore, regarded as a major variety of *R. Manglesii*, or a distinct species, it is a most charming introduction for our gardens.

RHODANTHE ATROSANGUINEA (*fig. 2*), differs more decidedly from the older plant, in having its stems somewhat corymbosely branched from the very base, in having long spatulate glaucous leaves, pitted on the upper surface, and in having the florets of the disk of a dark bronzy red. The same features distinguish it from *R. maculata*, than which the plant itself is dwarfer, and more slender, branched quite at the base, thus producing several long stems, almost or quite equalling the primary one, all of them being reddish towards the top, where they bear a patently-branched inflorescence, subtended by minute bracts which are scarcely apparent. The lower leaves are spatulately-oblong, blunt, shortly amplexicaul, 3 inches long, and half an inch wide; the upper ones larger, ovate-oblong, perfoliately amplexicaul, with an incurved, somewhat hooded point; the whole of them being glaucous and pitted on the upper surface. The flower-heads are numerous, with a dark bronzy red disk, and a self-coloured striated ray of a deep rose colour, expanding to about an inch across; the outer scales being, as in the allied plants, of a transparent silvery hue. The "buds" in this species are erect, and the mature flower-heads semi-horizontal. While in bloom, the dark-coloured disk becomes speckled with yellow, as the florets successively protrude their anthers. Altogether its aspect is very pleasing.

These plants require precisely the same treatment as the well-known *R. Manglesii*. They are, all of them, very pretty pot annuals; and they are well adapted for growing out-of-doors in beds of good light soil, during the summer months. Writing in June last, Mr. Thompson remarked: "the beds of *R. maculata* look very beautiful waving in the breeze;" and "the dark-eyed one looks like a *Cineraria*, the dark disk being most effective, especially when the truss is composed of ten or twelve flower-heads, as some are: many plants have from fifty to eighty flower-heads. Tastes will differ, but I am much mistaken if this species does not become fully as popular as the other." Again: "When the sky is clear the scales surrounding the disk expand horizontally in both species. The *maculata* is so large that even when half closed it is still effective; but the *atrosanguinea* depends more for its effect on being fully expanded. In the early part of the day the flowers are quite erect, but towards evening they droop even if the pseudo-rays are expanded." According to our own observation, both of them keep their ray-scales well-expanded in a warm, sheltered situation—such as an open greenhouse, even without sun; the expansion or otherwise of these dry membranous organs probably depending mainly on the hygrometric condition of the surrounding atmosphere.

We understand Mr. Thompson has a white-rayed variety of *R. maculata*, but not in sufficient quantity for distribution. M.

ROSES OF 1862.

ACCORDING to my promise in the last FLORIST AND POMOLOGIST, I take up my pen to write a few words on such of the novelties of 1862 as have bloomed. There are three good-habited Roses with nice foliage and clean buds not yet open—viz., Madame Charles Wood, Madame Clemence Joigneaux, and Alphonse Damaisin. Of these and two or three others I shall be able to give an account at a future time.

1. *Alexandre Dumas*.—This is not, I think, the darkest H.P. yet out, as stated. The Empereur de Maroc, Prince Noir, and Prince Camille de Rohan are much darker. It is, however, a dark Rose, medium-sized, well formed, an abundant bloomer, unique, and choice in its colour, velvety, dark purple, becoming darker by atmospheric action. It is a good Rose.

2. *Comtesse de Segueur*.—This is a clear velvety red or cherry crimson, a lasting flower, thick-petalled, smooth, and velvety. It is well formed. I have given precedence to these two, as they were respectively the winners of the first and second prizes and medals as seedlings at Paris; but they will find the next three very awkward to meet.

3. *Prince Camille de Rohan*.—This is a very beautiful dark maroon, slightly reddened, and as dark and velvety as Maroc. Its petals are very thick, and the Rose is well folded. Its habit and growth are good.

4. *Duc de Rohan* is very beautiful, globular, deep and thick in petal; colour very clear bright light vermilion. It is also very velvety—a superb Rose. Had Levêque shown this Rose as a seedling, I think he would have taken first honours; but at the same time I must observe Prince Camille de Rohan, in its own line of colour, is quite as beautiful.

5. *Beauty of Waltham* is a very beautiful and clever Rose, rich clear sherry crimson, well-formed, thick-petalled, velvety and smooth; a show Rose all over. It is like Gloire de Santenay. I sent a beautiful small specimen of it yesterday to Shepton Mallet. Its foliage and habit are fine. It will be a great favourite.

6. *Maurice Bernardin* is a fine globular Rose; it came out in very bad weather. I can only say of it at present that it is a promising Rose.

7. *Gloire de Chatillon* is a better-habited M. Masson. Its colour is clear red, subject to purple stain in wet weather. In dry weather it is lighter and brighter than M. Masson; its blooms are 4 inches over.

8. *M. Boutin* is a very neat Rose, formed like Francis I., but it will be better. The colour is rich fixed cherry red.

9. *Adolphe Noblet* is a well-formed red Rose, something like Prince Léon; its growth and habit are doubtful. Its one bloom was good.

10. *Emile Dulac* is a full-sized, bright, handsome, flat-cupped Rose, something in the way of Sir J. Franklin. It is not a dark Rose as stated; it shows no eye. It will not be a great or late bloomer, but what it will do it will do well.

The first eight Roses do the raisers great credit, especially 1, 3, 4, 5. No one can hurt himself if he buys the first eight Roses. I cannot conclude this account without saying that Levêque et fils deserve great praise for sending out four such Roses as 2, 4, 6, 7 in one year. 4 will be a great favourite.

Amiral Gravina (not bloomed when I sent my last article), is a globular clear dark crimson purple, and may well be added to the five dark Roses recommended in my last article, which, with Alexandre Dumas and Prince Camille de Rohan, will make eight excellent dark Roses of free growth, hardiness, good form, fine substance, and splendid colouring. I retract nothing of what I said in my last article, as far as it relates to the Roses therein named. Some of them deserve much higher praise than I gave them—viz., Princesse Mathilde, Duc de Cazes, Madame Charles Crapelet, and Belle de Bourg-la-Reine. I must, however, own that 3, 4, 5, are equal to (and it may be superior) to any in their own line of colour. I consider that up to this time Sénateur Vaisse for its clear colour, fine form, and excellent habits to be *the* great Rose of the present day.

Madame C. Wood is a first-quality, first-class Rose, and very beautiful.

Several other Roses, not herein named, are beautiful for growth and foliage. I have pinched off their points to induce them to bloom this year. The best of this lot are Archevêque de Paris, Mademoiselle Julie Daran, Professor Kock, Richard Smith, l'Eblouissante, and Pourpré d'Orléans. I think that, as far as I have been able to prove the novelties, the French and English raisers have given a fair account of their productions. I have ordered six plants of "John Hopper," raised by Mr. Ward, of Ipswich; it is a very fine English seedling, and will long abide in the catalogue. Its growth, foliage, size, form, and colour are sure to recommend it. Mr. Ward sent me five fine clusters of it, one of which was finer than any of those exhibited by him at Kensington, and to which a first-class certificate was awarded. By its side was a pair of "Reynolds Hole," a nice fresh bright pink; a novel and choice colour. This was exhibited by Mr. Standish, of Bagshot.

August 19.

W. F. RADCLYFFE.

THE BEST HYACINTHS.

BEFORE another Number of the FLORIST AND POMOLOGIST will be in the hands of your readers, the season will have arrived when the growers of Hyacinths should at least have made up their minds what bulbs to order for the ensuing winter and spring—if, indeed, the selection being actually determined on, the order be not then already given. I have, therefore, thought that having last year devoted some time and attention to a close examination of the

principal metropolitan collections, I might usefully occupy a portion of the space at your disposal, by pointing out the varieties which are the most distinct and desirable. These I have endeavoured to classify according to their colours. The double-flowered varieties are entirely omitted, as they are so thoroughly beaten in every point of view by the single-flowered sorts. My notes run as follows:—

§ I.—BRIGHT RED.

1. *Howard*: bright orange red; something of the colour of *Solfaterre*, but without the light eye; showy.
2. *Lady Sale*: bright lake, with white eye; good.
3. *Lina*: lively crimson-lake; very pretty and effective.
4. *Macaulay*: bright and deep rose-pink, or perhaps rather pink-rose, moderately large and smooth; an improvement on *Milton*; fine spike.
5. *Milton*: bright lively-looking pinkish-rose; good.
6. *Pelissier*: deep rich crimson-lake; a decided advance on *Lina*.
7. *Reine des Jacinthes*: very fine; crimson-lake of a brighter and richer shade than *Lina*; one of the best.
8. *Robert Steiger*: good truss; bright red; a fine variety for general purposes.
9. *Solfaterre*: fiery orange red with light eye; the brightest of all, but very rare.
10. *Victoria Alexandrina*: deep lake-red with moderately large bells, and very smooth; the best of the bright reds, and fine every way.

§ II.—PINK OR BLUSH.

11. *Cavaignac*: bright rosy-pink with stripes of darker rose; large and smooth.
12. *Duchess of Richmond*: pink with deep red stripes; lively looking; a useful sort.
13. *Gigantea*: fine massive spike, but small narrow-petaled flowers; blush.
14. *Koh-i-noor*: pink with striped segments, the spike dense but rather crowded and confused, otherwise fine; pips smooth.
15. *La Prophète*: pink, with darker stripes; good.
16. *Madame Hodgson*: deep blush with pink stripes; fair spike.
17. *Mrs. Beecher Stowe*: pink striped with darker red; spikes crowded—too much so, looking confused.
18. *Princess Charlotte*: in the way of *La Dame du Lac*, but with finer spike and pip; delicate soft pink; new in colour and good.
19. *Princesse Clotilde*: bright pink striped; crowded and confused spikes.
20. *Queen Victoria*: similar to *Duchess of Richmond*, but somewhat deeper in colour; lively pink, with red stripes.
21. *Sultan's Favourite*: moderately large, blush with pink stripes inside, and dark base outside; fine; smooth surface.

§ III.—BLACKISH-VIOLET.

22. *Blackbird*: very dark almost black-purple, darker than *Prince Albert*; good spike, but not large bells.
23. *General Havelock*: bold spike and moderately large bells; blackish-violet; more blue than *Prince Albert*; fine.
24. *Prince Albert*: fine dark black-purple.

§ IV.—BLUE.

25. *Argus*: fine indigo, with azure tube, and white eye; a most attractive variety.
26. *Baron Van Tuyll*: a good useful blue, producing fine spikes.
27. *Bleu Morant*: dark violet-blue with deeper stripes; fair spike; smooth and rich-looking.

§ V.—AMARANTH.

28. *Haydn*: mauve with reddish-purple stripes; new; very fine, smooth.
29. *Honneur d'Overveen*: deep puce-mauve; rather heavy looking, but distinct.
30. *L'Unique*: a purplish red, very pretty, and useful for general purposes.
31. *Prince of Wales*: puce-mauve with stripes of deeper colour; new and effective.
32. *Regina Victoria*: dull puce-red with darker stripe down the centre of the segments; distinct but dull and ineffective.

§ VI.—STRAW OR YELLOW.

33. *Aurora*: pale straw tube splashed with pink outside, the limb pinkish with deeper stripes; very distinct, and pleasing.
34. *Duc de Malakoff*: straw colour striped with rosy-lake; very distinct and desirable; a fine bold telling variety.

35. *Ida* : good clear yellow ; bold spike.
 36. *Victor Hugo* : pale clear yellow ; neat and pleasing.
 37. *William IV.* : straw colour, with deep red stripe, in the way of *Duc de Malakoff*, but not equal to it.

§ VII.—WHITE.

38. *Bridal Bouquet* : dwarfish ; pure white, with large flowers and broad reflexed segments.
 39. *Mont Blanc* : pure white, moderately large ; fine spike, smoother than *Paix de l'Europe*.
 40. *Paix de l'Europe* : pure white, bold and good ; an effective flower.

§ VIII.—LARGE-FLOWERED WHITE.

41. *Alba Maxima* : pure white, good, broad segments ; approaching *Snowball* in shape.
 42. *Madame Van der Hoop* : pure white ; magnificent bells, and good spike ; one of the finest.
 43. *Miss Burdett Coutts* : nearly pure white with a pale blush streak ; large smooth finely-formed bells, and broad segments.
 44. *Queen of the Netherlands* : pure white, large.
 45. *Snowball* : creamy-white, broad nearly equal segments ; the finest of all Hyacinths for shape and substance, and one of the largest.

§ IX.—LARGE-FLOWERED BLUSH.

46. *Elfrida* : large bells, blush-white ; good and effective.
 47. *Grandeur à Merveille* : blush, large bells, fine.
 48. *Tubæflora* : blush stained with red at base of tube outside ; large bells ; fine.

§ X.—LARGE-FLOWERED PINK.

49. *Norma* : pale waxy-pink, large bells ; beautiful but not so durable as some.

§ XI.—LARGE-FLOWERED BLUE.

50. *Couronne de Celle* : pale blue, very large bells ; rather lax foliage, but effective flower.
 51. *Grand Lilas* : large bells, pale blue, very fine habit ; effective every way.
 52. *Grand Vedette* : pale blue, large bells.

These are all good Hyacinths, fine in colour, in habit, or in shape, and for the most part ranking high in respect to all these qualities combined. Some of them are doubtless expensive, if, indeed, they are procurable. I should fix on the undermentioned as the very best among them :—

- | | |
|---------------------------------------------------------------------|------------------------------------------------|
| § 1. Howard, Macaulay, Reine des Jacinthes, | § 7. Mont Blanc. |
| Victoria Alexandrina. | § 8. Madame Van der Hoop, Alba Maxima, |
| § 2. Cavaignac, Koh-i-noor, Princess Charlotte, Sultan's Favourite. | Snowball. |
| § 3. General Havelock, Prince Albert. | § 9. Elfrida, Grandeur à Merveille, Tubæflora. |
| § 4. Argus, Baron Van Tuyll. | § 10. Norma. |
| § 5. Haydn, Prince of Wales. | § 11. Grand Lilas. |
| § 6. Duc de Malakoff, Ida. | |

As good cheap showy sorts fit to grow in quantities for general decoration, either in pots or glasses, I should strongly recommend *Lady Sale*, *Robert Steiger*, *Duchess of Richmond*, *Sultan's Favourite*, *Prince Albert*, *Baron Van Tuyll*, *L'Unique*, *Queen of the Netherlands*, *Madame Van der Hoop*, *Grandeur à Merveille*, *Norma*, *Grand Lilas*.

London.

M.

SMOOTH CAYENNE PINE.

YOUR correspondent Mr. D. Thomson seems much surprised at my condemnation of this Pine, and thinks I cannot have got the true variety. In my remarks (see page 43), I said, "With good management, when they show at a good season, they will bear very fine handsome fruit. We have grown most beautiful fruit of both kinds for years, and have obtained many prizes with them : still our candid opinion is against them." Then follow the reasons why I thought them not worthy of extensive cultivation. I never considered it anything very extraordinary to cut from 11-inch pots fruit weighing from 6 to 9 lbs. It is a very strong-rooting and free-growing variety, and is

easily grown to a fine plant, so that there is little difficulty in getting large fruit: this I had learned from considerable experience many years since. At one time I entertained a high opinion of it, and increased my stock of it as much as I could; but further experience of it has taught me that though the fruit are in general large and handsome, that they are sometimes apt to decay in the lower part before the top is thoroughly ripened, and that the very finest fruit when ripe will only keep a short time. All the large kinds of Pines are notoriously bad keepers, and the Cayenne Pines are as bad as any. I have sometimes kept the fruit in a sound condition for three weeks, but not always. If the weather be hot and close it will begin to get dark and black in ten days or a fortnight, and at the end of three weeks they will not be fit for use. This I have experienced over and over again, whilst the Ripley Queen under the same circumstances has been perfectly sound and good at the end of six weeks. In winter I have invariably found the Black Jamaica keep twice as long as the Cayenne. This question of long keeping I consider one of great importance, both to the private and commercial grower. To the private grower, because even in the largest establishments it will sometimes happen that a number of fruit may be ripe when not much wanted, and at other times when most wanted there may be only a few ripe: therefore those sorts of first-rate quality which will keep longest in good condition are in my very humble opinion best deserving of extensive cultivation. To the commercial grower the kinds that keep longest are doubly as valuable as those perishable sorts which, because they will not keep, he is oftentimes compelled to sell at a ruinous low price. Put a half-dozen Cayenne Pines and half a dozen Ripley Queens into a fruiterer's shop at midsummer, and see which will be most fit for table at the end of three weeks. Again, in winter, put some Black Jamaicas and Cayennes and see which will be in the soundest state at the end of four weeks: the Cayennes will most probably be half rotten, whilst the Black Jamaica are in the soundest state. Perhaps Mr. D. Thomson has not had much experience in this matter. I have had some, and am, therefore, not writing from hearsay evidence. In very large collections it may be desirable to grow a few Cayennes, Providences, Envilles, Otaheites, Trinidad, &c., for size and variety: but for general use and quality there are none better than the Ripley Queen in summer, and Black Jamaica in winter. The Queen will keep in summer from six to eight weeks, and the Jamaica will keep equally long in winter, so that when a tolerable stock of these sorts are grown there can be *no scarcity* of Pines at any time of the year.

I feel pretty certain that the variety I had was the true, though it did not come from the source whence Mr. D. Thomson says the true variety had sprung exclusively. I believe other parties in this country had it as soon as they had it at Frogmore. I know Mr. Spencer had it at Bowood more than twenty years ago, and I believe he got it direct from France. I should think Mr. Spencer must know the true variety. If his plants were true so were mine, for I first got them from him.

I have also grown plants that came direct from France, but could perceive no difference. I have also seen it grown in a number of places, and can hardly be deceived as to the true variety. My experience of Cayenne Pines now exceeds twenty years; and as I was a considerable grower of them for many years, and as I gave up growing them solely for the reasons I gave, I thought the few remarks I made at page 43 would be a salutary check to some young Pine-grower who may be very anxious to get a large stock of Cayennes. I am very much obliged to Mr. D. Thomson for his very kind offer to place one or two plants of the sort he has in my hands for further trial; but I beg most respectively to decline it.

M. S.

ROYAL HORTICULTURAL GARDENS.

THE remarks which have recently appeared in your pages in reference to the Royal Horticultural Society's gardens seem to have produced some effect upon the official mind at South Kensington from what I hear; and as you condemned the plan and pointed out the defects in the design even before the gardens were finished, it is so far satisfactory to myself and other of your readers to know you were not misled by all the fuss published by your contemporaries, and the silly remarks which so constantly met our ears about this *chef d'œuvre* of Mr. Nesfield. My object, however, is now to direct your attention to Chiswick, which we are told is soon to be taken in hand by way of improvement, and to hope, if it is attempted, the same faults will not be committed there which unfortunately are so universally condemned at Kensington. Some years ago a very pretty spot was made in one corner of Chiswick by their then Superintendent (Mr. McEwen), which suggests what might be done on a larger scale. I suppose there is not room for a complete arboretum, or even for a pinetum; but much instruction might be afforded visitors by planting all the most characteristic species of hardy trees; and further by classing them somewhat in the way they are placed together in such catalogues as Lawson's or Knight's. As I remember how strenuously you advocated retaining Chiswick years ago when it was wished to break it up, you, probably, will now keep your eye upon it; and, if it is to be altered, do pray try what you can do to get introduced some bits of nature—tint, shade, and water, with instruction, so far as it can be combined with the above.

ANOTHER COUNTRY F.R.H.S.

[We know nothing of what is proposed to be done at Chiswick, and excepting seeing what appeared in the columns of our contemporary a few weeks ago, have heard nothing on the subject. We certainly advocated the retention of Chiswick, but that was for experimental and practical purposes, for which it is well adapted, and which is now admirably carried out there. So far as making Chiswick a place for recreation and instruction goes, there is a large space of ground which *might* be converted into ornamental gardens or pleasure grounds, combined with a more extended arboretum than the Society now possess, but nothing very striking in landscape gardening could be produced without a large outlay, so we think.—
Eds. F. & P.]

DYE APPLES.

IN your June Number is a short paragraph anent the reported use of Apples or Apple juice in calico-printing, with the request that some one in the manufacturing districts would kindly inform you if such was really the case, as then you thought you could, out of your extensive pomological experience, give the information which varieties it would be best for growers to cultivate, some being more distinguished for the production of malic acid than others. As soon as I read this I "made a note of it," and promised it immediate attention; but the pressure of other subjects and duties has compelled me to neglect it as well as many of equal importance I hail from the neighbourhood of Cottonopolis, and, though removed by time and distance, keep up a chain of communication with a long circle of friends. Sorry are we to know that scarcity of work, bringing inevitable poverty in its train, is with them not the exception but the rule. The Lancashire operative is no servile hypocritical beggar. No man on the face of the earth is so independent, none so impatient of eleemosynary aid; and we know from sources too genuine to be doubted how bitter are the thoughts that men, willing and able to work, are compelled by all-convincing hunger to accept charity. Oh, ye with generous

hearts (and their number is legion, as the responses to appeals so loudly testify), help the honest, loyal, factory-workers; mark how patiently are borne evils that they have had no hand in raising; give them of your abundance, and the blessing of him that was ready to perish, as well as of the widow and orphan, will bring down Heaven's favour upon you and yours. Pardon these few extraneous words, but the thoughts *would* find utterance.

It was to one of these operatives (a plain, rough, but well-read and intelligent man), that I applied for a solution to the question. I sent the paragraph with suitable explanations. He replies thus:—"Besides my own knowledge [and he is a colour-maker at a large print-works], I have made many inquiries respecting 'Dye Apples.' There is not an atom of truth in the assertion that the *juice* is used for the fixing of colours, or *used in any way thereto*. I have asked one friend who, you know, served his apprenticeship with Professor Calvert, of Manchester [a man of notoriety as a chemist], and he says that both Calvert and O'Neil [another celebrated chemist in Manchester], affirm that there is not the slightest truth in the statement; it was simply a hoax upon the public to make a rise in Apples. It was noticed in the local papers at the time; I have not them by me, or you should have them. You must know that the new colours (mauve and magenta), are made from gas tar. If this note is of any service I shall be glad." And there is nothing left me but to echo the same wish.

Radcliffe-on-Trent, near Nottingham.

N. H. POWNALL.

MITCHELSON'S PLUM.

WITH AN ILLUSTRATION.

THIS valuable Plum was raised many years ago by Mr. Mitchelson, a market-gardener and nurseryman at Kingston-on-Thames. Its origin is said to have been from the seed of a Damson; but whether that is correct or not cannot now be ascertained. That it has all the appearance of being an ameliorated form of the Damson there cannot be a doubt, for both the habit of the tree and the dense masses of fruit that are produced lead to that conclusion. The tree is remarkably hardy and bears enormous crops almost every year in succession. Of late years this has become a great favourite among some of the leading market-gardeners about London, who find in it one of the most profitable varieties for market purposes. For the last three seasons we have ourselves seen it producing such masses of fruit that the branches of the trees have required support. Whether as a dessert Plum or for culinary purposes it is equally useful, but more particularly so as a cooking variety. It makes an excellent preserve, which has a fine deep purple colour, and very rich and sprightly flavour.

Fruit above medium size, oval, not marked with a suture on the side. Skin black when fully ripe, dotted with a few very minute fawn-coloured dots, and covered with a very thin blue bloom. Stalk half an inch long, stout, and inserted in a depression. Flesh yellow, tender, very juicy, sweet, and of good flavour, separating from the stone. Shoots smooth.

An excellent preserving Plum. Ripe in the beginning of September. In general appearance it is like the Diamond, but smaller, and does not possess that very brisk acidity which characterises that variety. It is a prodigious bearer, the fruit being produced in clusters, and it is invaluable as a market Plum.



Mitchelson's Plum.

VALLOTA PURPUREA.

THIS is one of the most useful autumn-flowering plants we have, either for greenhouse or room decoration. As a vase or table plant it has few equals, and not many superiors; but it appears not so generally grown as it deserves, for many visitors have never seen it before. Possibly the little trouble required to grow and flower it is turned to quite as good account as growing the "standard plants" for dinner-table decoration; for the list of plants exhibited either tells a tale of very poor choice of plants flowering at this season, or a great want of judgment and taste in what table plants should be. I will give a few remarks on my system of growing the above-named plant, which although probably not the best, has answered very well. I will commence with the plants after flowering. It being an ever-green bulb, of course never requires to be kept quite dry; so from the time of going out of flower until the end of February I keep it in a coldinery with greenhouse plants, not giving fire heat unless the thermometer goes below 40°, with water enough to keep the foliage fresh and green. Early in March I remove the plants into a shallow pit heated with hot water and raise the temperature from 45° at the beginning to 60° at the end of the month at night, with an increase of 10° by day. I give plenty of air, and the plants being close to the glass do not get long in the leaves; at the same time I keep the pots standing in pans of water. As the days get hotter the lights are pulled nearly off in bright sun, and early in June the plants are removed into a cold frame, where they are kept close to the glass, and in pans as before. Early in July I shake all the old soil from the roots, take all young bulbs away, and repot in a mixture of one part good loam, one part peat, one thoroughly decayed and dried hotbed manure, and one part sharp sand, the soil chopped rough, and putting a good drainage of broken crocks at the bottom of the pots, with some rough lumps of soil and dung over it, as it is obvious that without thorough drainage the soil would soon get sour and waterlogged from the abundance of water given both above and by pans in the growing season.

For table decoration 6-inch pots are the most useful size, so I pot a quantity of the moderate-sized bulbs in that size for the purpose, and the larger ones either singly into 7-inch or three together in a 9-inch pot; the largest bulbs of last year's young ones three or four into a 6-inch size, and if I wish to save the young bulbs I sort them into sizes and put seven or eight round the same-sized pot. I replace them into the frame and give moderate waterings until the roots begin to grow, and keep the frame rather close. I shade during day, but pull the lights off at night, and I do not stand them in pans again, unless it is a few of the earliest when showing bloom. When the plants are again established the lights are off day and night, excepting in heavy rains; and by the first week of August some will show flower, and will be followed by others until the end of September, so that with a few dozen plants we can have some in flower for two months, for they last a long time in bloom as the days get shorter.

The bulbs in the two first-mentioned sizes throw up from two to four flower-stems, with from six to ten flowers on a stem: not the small flower we see where the bulbs are kept in the same pots and soil for a term of years, but blooms of immense size and substance; and the best bulbs of last year will show one flower-stem with from four to six flowers generally the last to flower.

The only care after flowering is not to put it away on a shelf without water, or it will be years before it does much good again if it once gets dry enough to lose its leaves.

Teddesley Gardens, Stafford.

J. TAPLIN.

THE METROPOLITAN EXHIBITIONS.

CRYSTAL PALACE, SYDENHAM, *September 3rd.*—This Exhibition had as one of its chief features a superb display of *Gladiolus*, and which has now become such a distinguishing feature of the autumnal exhibitions. They occupied the corners formed by the junction of the nave of the building with the centre transept, and extended nearly to the front of the building on each side. A centre table in front of the great orchestra was devoted to the collections of Fruit. Dahlias, Hollyhocks, and Asters occupied the remainder of the tables under the transept, and the rest of the fruit found a lodgment in that portion of the nave stretching away to the tropical department.

With the best collection of *Gladiolus*, Messrs. Youell & Co., Great Yarmouth, were first—a firm who cultivate this flower somewhat extensively, more especially *Brenchleyensis*, a variety they grow on a very large scale. Hitherto, Messrs. Youell have been content with sending up a collection of flowers "not for competition;" but this season they have displaced their Bagshot rival from the coveted position of first place. Mr. Standish was therefore second; Mr. W. Paul, Waltham Cross, third; and Messrs. Paul & Son, Cheshunt, fourth; while an extra prize was given to M. Loise, of Paris, who had a collection of some three

hundred spikes that had travelled remarkably well, but provoked a smile by the altogether unique arrangement that characterised them. Bass & Co. had lent their aid in the shape of pint stout-bottles, that formed a grotesque pedestal for the flowers above it. Messrs. Carter and Co., and Mr. Cattell, of Westerham, also exhibited, thus widening the area of exhibitors, which seems to be steadily increasing year by year. The group of Messrs. Youell & Co. differed from the others in this respect—they exhibited bunches of three or four spikes; the others staging single spikes only. At each end of their collection were large bunches of the brilliant *Brenchleyensis*, that had a charming effect. Among the varieties were the following of shades of crimson and scarlet:—*Madame Eugénie Verdier*, *Couranti Fulgens*, *Gandavensis*, *Rembrandt*, *Mons. Keteleer*, and *Comte de Morny* (three splendid high-coloured varieties), *Mons. Bluet*, *Dr. Andry*, *Minnie*, *Neptune* (very fine), *Triomphe d'Enghien*, *Vulcain*, *Duc de Malakoff*, and *Achille*. Of shades of rose, there were *Hebe*, *Pegasus*, *Lælia*, *Egerie*, *Isoline*, *Penelope*, *Galathée*, *Endymion*, *Comtesse de Bresson*, *Clemence*, *Empress Clementine*, *Rebecca*, *Velleda*, *Comtesse Amy*, *Ninon de l'Enclos*, and *Erato*. Of delicate light shades there were, *John Bull* (a very beautiful lemon-shaded blush, pencilled with purple in the lower segment, a fine spike), *Madame Leseble*, *Madame Vatry*, *Junon*, *Madame Binder*, and *Solfaterre* and *Ophir*, two pale buff kinds. Mr. Standish had a group of his fine strain of seedlings, but the "getting-up" of the collection was not so neat as we have seen before. The quality of the individual spikes in this stand was superior to any other; but as the Judges seem to take the effect of the whole as the ground of their award—a result towards which careful and painstaking arrangement must greatly contribute—quality must give place to order and showy effect. Let us hope this end will be kept steadily in view when *Gladioluses* are exhibited. A striking and effective group is to be preferred to a meagre collection that possesses the "points of quality" that would exclude many beautiful and showy varieties, because the flowers are large and loose, or because they may not present a "front" to the eye instead of forming a feather, as a few of them undoubtedly do. The most striking from Bagshot were *Eugène Domage*; *Guido*, orange scarlet, with purple and yellow throat; *General Cabrera*, a shade darker, pencilled with carmine and canary; *The Ensign*, a very large loose flower, streaked with purple on the lower segment; *Rev. J. Dix*; *Rosenberg*, crimson carmine, stained with orange and pencilled with deep crimson, very novel and striking; *Garibaldi*, rich glowing scarlet, pencilled with purple and blush; *The Cardinal*, deep carmine, flaked with blush, and blotched with lemon on the lower segment, a very large and fine spike; *Bacchus*, brilliant orange scarlet, flaked with blush; all high coloured-varieties. Of rose shades there were *Edith Dombtrain*, light salmon rose, pencilled with carmine and gold; *Miss Howell*, deep rose feathered with scarlet, and having a white stripe up the centre of each petal, the lower segment stained with yellow, very fine; *Mrs. Menzies*, blush, streaked with carmine on the edges, throat pencilled with purple and lemon, very novel and fine; *Delicatissimus*, blush, flaked with carmine, pencilled with purple, a large flower; *Adam Bede*, blush, flaked with crimson, and having a large carmine blotch on the lower segment, very fine; *Madame M. Dumortier*, white, slightly feathered with purple, and crimson marking, fine; *Daphne*, salmon rose, flaked with carmine, bright crimson blotch on the lower segment, very showy; *Reine Victoria*, large white, with crimson pencillings on the lower segment, a fine exhibition flower; *Donald Beaton*, pale rose, flaked with carmine, and purple blotch; *Belle of Bagshot*, large light flower, pencilled with purple and lemon; *Alice Grey* and *Mdlle. Patti*, both very similar to the *Belle*; *Elegantissimus*, pale salmon rose, flaked with carmine, and pencilled with purple; *Adèle Souchet*, a large pale rose, flaked with lilac; and *Oliver Twist*, pale salmon rose, with lemon blotches on the lower segment. Mr. William Paul had fine examples of the following high-coloured kinds:—*Dr. Andry*, *Brenchleyensis*, *Couranti Fulgens*, *Othello*, *Louis Van Houtte*, *Madame Couder*, *Raphael*, *Pluton* (a beautiful *Ramosus* hybrid, brilliant scarlet, blotched with white and purple), *Duc de Malakoff*, *Napoléon III*, *Eugène Verdier*, *Molière*, *Madame Furtado*, and *Comte de Morny*. Of shades of rose there were *Goliath*, *Achille*, *Hebe*, *Endymion*, *Ninon de l'Enclos*, *Bertha Rabourdin*, *Fanny Rouget*, *Velleda*, *Oracle*, *Princesse Clotilde*, and *Daphne*. Light kinds were represented by *Penelope*, *Madame Binder*, *Marie*, *Madame Leseble*, *Impératrice*, *Madame Periere* (delicate blush, with crimson blotch on the lower segment), and *Ophir*; *Sulphureus*, and *El Dorado*, shades of yellow. The stands of Messrs. Paul & Co. and Carter & Co. contained scarcely anything distinct from those already named. The same remark will apply to M. Loise's group.

Dahlias were numerous and remarkably fine, and brought out the forces from Slough and Salisbury in full array. Mr. Turner was first with forty-eight varieties as follows:—*Lord Palmerston*, *Lady Franklin*, *Lady Popham*, *Goldfinder*, *John Keynes*, *Earl of Shaftesbury*, *Heroine*, *Commander*, *Hon. Mrs. Trotter*, *Madge Wildfire*, *Criterion*, *Sidney Herbert*, *Model*, *Cygnets*, *Captain Harvey*, *Chieftain*, *Lady Elcho*, *Lord Cardigan*, *Joy*, *Hope*, *Volunteer*, *Pioneer*, *Dinorah*, *Pluto*, *Lord Derby*, *Duchess of Wellington*, *Perfection*, *Sir G. Douglas*, *Lord Eversley*, *Miss Pressley*, *Mr. Stocken*, *Mrs. Pigott*, *Mrs. Boshell*, *Marquis of Bowmont*, *Chairman*, *Jenny Austin*, *Mrs. H. Vyse*, *Cherub*, *Warrior*, *Juno*, *Lord Dundreary*, *Golden*

Drop, Admiral Dundas, Umpire, Bob Ridley, Norfolk Hero, Beauty of Hilpertown, Delicata, and George Brown. Second, Mr. J. Keynes, with Norfolk Hero, Marquis of Bowmont, Sidney Herbert, Golden Drop, Mrs. Boshell, Handforth Hero, Miss Watts, Beauty of Hilpertown, Pauline, Marian Carter, Lord Palmerston, Jenny Austin, Model, Pioneer, Umpire, Empress of India, Lilac Queen, Oscar, Magnificent, John Keynes, Lord Derby, General Jackson, Chairman, Goldfinder, Pandora, Sir G. Douglas, Donald Beaton, Juno, Earl of Shaftesbury, Lady Elcho, Mrs. Vyse, King of Sweden, Zebra, Mrs. Church, Mr. C. Waters, Queen, Alice Dodds, Lady Popham, John Harrison, D'Israeli, Cherub, and seedlings. Third, Mr. H. Legge, Edmonton. Extra, Mr. Cattell, Westerham; the stand of the latter being disqualified from taking any prize by reason of containing two blooms of Madge Wildfire, a circumstance that the Judges must have overlooked. With twenty-four varieties, Mr. Turner was first and Mr. Keynes second, with counterparts of the flowers named above; third, Mr. Cattell; fourth, Mr. Legge. With twelve Fancies Mr. Keynes was first with splendid blooms—viz., Elegans, Harlequin, Miss Jones, Countess of Bective, Queen Mab, Mrs. Crisp, Pauline, Confidence, Nora Creina, Starlight, Lady Paxton, and Madame Sherrington. Second, Mr. Turner, with flowers only just inferior, having Harlequin, Mrs. C. Kean, Queen Mab, Gem, Nora Creina, Fancy Queen, Countess of Shelburne, Summertide, Pauline, and Lady Paxton. In the Classes for Amateurs, Mr. Wm. Corp, Salisbury, was first with twenty-four varieties—viz., Jenny Austin, Lady Elcho, Sidney Herbert, Alice Dodds, Lady Popham, Lord Taunton, Donald Beaton, Earl of Shaftesbury, Marian Carter, Mrs. C. Waters, King of Sweden, Juno, Empress, Lord Palmerston, Marquis of Bowmont, Lady Franklin, Lilac Queen, Mrs. Boshell, Sir J. Outram, Mrs. Critchett, Pioneer, Chairman, Golden Drop, and seedling. Second, Mr. H. Thorneycroft, Weedon; third, Mr. Davis, Peckham; fourth, Mr. Watt, gardener to J. J. Colman, Esq., Norwich. With twelve blooms, Mr. Thorneycroft was first, having Chairman, Cherub, Earl of Shaftesbury, Lord Derby, Jenny Austin, Hon. Mrs. Trotter, Golden Drop, George Elliott, Admiral Dundas, Lord Cardigan, Umpire, and Lord Palmerston. Second, Mr. W. Corp; third, J. Sladden, Esq., Sandwich; fourth, Mr. Batten, Eton. With twelve Fancies J. Sladden, Esq., was placed first, having fine blooms of Jessie, Lord Stanley, Summertide, La Deesse, Madame Alboni, Confidence, Gom (Stafford's), Lady Paxton, Elegans, W. Corp, Mrs. Crisp, and Queen Mab. Second, Mr. W. Corp, with Harlequin, Garibaldi, Lady Paxton, Confidence, Splendid, Fairy Queen, W. Corp, Gem, Pluto, Mary Launder, Mrs. Crisp, and Jessie. Mr. J. Keynes received a First-class Certificate for seedling Dahlia "Patent," orange buff, streaked with crimson, a flower of great substance and very novel. The same award was made to Mr. Turner for "Lord Dundreary," lemon, tipped and streaked with pale purple; a well-formed flower, and very novel. A Second-class Certificate to the same for "Countess of Shelburne," pale lilac blush, slightly tipped with purple; a very pleasing flower of exquisite form. The same to Mr. Silver, Reading Street, Margate, for an unnamed seedling, colour lemon buff, tipped with lake; a very distinct and promising exhibition flower. Mr. Turner also had the following seedlings:—*Caractacus*, golden buff ground colour, tipped with crimson, very novel; *Charlotte Doring*, blush, tipped and streaked with purple, a flower of good form, but low in the centre; *Volunteer*, light maroon; *Lord Taunton*, rich glowing crimson, of fine form and substance; and *Picturata*, golden fawn colour, striped and splashed with crimson, very promising. Mr. Pope, Chelsea, had Walter Newman, a small compact flower, rosy salmon, tipped with gold. Mr. G. Rawlings, Bethnal Green, had twelve blooms of *Serenity*, delicate blush, tipped with purple in the centre, a very pleasing flower; Mrs. Hogg, rosy lilac, pretty; *The Beau (Fancy)*, crimson stripes on a light ground; *Fascination*, rosy lilac, streaked and suffused with crimson, very full and promising, and possessing a novel shade of colour; and *Gem*, pale lilac, tipped with purple. Mr. Keynes had *Orb*, deep lilac, suffused and tipped with crimson; *Charles Turner*, bright golden ground, tipped with lake, a flower of great depth and substance, and very promising; *Princess Alice*, bright rosy lilac, a pleasing colour; *Count Cavour*, a small canary-coloured flower; six blooms of a large bright scarlet unnamed; and three of a bright rosy scarlet, very promising.

Such a display of Asters was never before seen. Both "Quilled" and "Paeony-flowered" kinds seemed to be in perfection. With the former, Mr. R. H. Betteridge was first; Mr. Besley, of East Hendred, second; Mr. C. Sandford, Walthamstow, third; and Mr. Wyatt, of Epsom, fourth. It will be seen that Mr. Sandford, who has hitherto confined himself to the "Flat-petalled" class, is seeking honours in the Quilled kinds. But Mr. Betteridge is aggressive as well; and though Mr. Sandford had two fine stands of French Asters, and is placed first and third, yet Mr. Betteridge gains second, and it was said by some of the Berkshire growers that Mr. Betteridge would be formidable in both classes at Kensington a week hence. Two extra prizes were also given.

Roses were not in good form here, still there were some good flowers here and there mingled with others that were thin, small, and almost colourless. Messrs. Paul & Son were first with thirty-six varieties; Mr. Turner, Slough, second; and Mr. Laing, Twickenham, third. With stands of twenty-four kinds, Mr. Turner was first; Mr. Keynes, Salisbury,

second; and Messrs. Paul & Son, third. With eighteen kinds, Mr. Moffatt, Dunmow, was first; Dr. Cooper, Slough, second; and Mr. Corp, Salisbury, and Mr. Dennis, Folkington, third and fourth.

Hollyhocks in spikes were shown by Messrs. Paul & Son, who were first; and Messrs. Downie, Laird, & Laing, Edinburgh, second. With twenty-four cut blooms, Messrs. Paul and Son were first, and Mr. Turner second. In the Amateurs' Class some good blooms were produced by Mr. H. Smalls, gardener to W. J. Sharpe, Esq., Norwood. Dr. Cooper, Slough, was second; and Mr. W. Hall, Stoke, Bucks, third.

Mr. Turner was first with twenty-four Verbenas, having a fine stand of the following:—Kathleen, Springfield Rival, Ariosto Improved, Zampa, Lord Elgin, Lady Taunton, General Simpson, Foxhunter, Firefly, La Gloire, Fireball, Géant des Batailles, Rose Imperial, Anglaise, Madame de Stenger, Delicatissima, Snowflake, and Lady Middleton. Second, Mr. G. Smith, Islington, with Nemesis; La Belle Cordeaux; Admiral Dundas; Le Bon Nicholas; Mrs. Sheppard; Souvenir de l'Exposition, pale pink, with bright carmine centre, very showy, but small truss; Black Prince, rich dark crimson, with large white eye, very showy; Reine des Amazones; and Earl of Shaftesbury, a light flower, with carmine centre. Third, Mr. Grimbey, Stoke Newington.

Mr. Turner was also first with eighteen spikes of Phloxes; Mr. Standish being second; and Mr. Cattell, Westerham, third.

In the Miscellaneous Class, Mr. Standish had two plants of his new Japan Lily in flower, and a good specimen of *Lonicera reticulata*, both of which were figured in the *FLORIST AND POMOLOGIST* for September. Messrs. J. Perkins & Son, of Coventry, received a First-class Certificate for *Verbena Lord Leigh*, a large brilliant scarlet with lemon eye, very fine and showy. Mr. Grimbey also received a Certificate for a collection of cut flowers; and Messrs. Cutbush & Son, of Highgate, contributed a group of *Tritoma uvaria*.

With a collection of eight dishes of fruit, Mr. A. Henderson, Trentham, was first with a Providence Pine, Black Hamburg and Muscat of Alexandria Grapes, Trentham Hybrid Melon, Barrington Peaches, Pitmaston Orange Nectarines, and Moorpark Apricots. Second, Mr. T. Dawson, Panshanger, with Muscat and Black Hamburg Grapes, Bon Chrétien Pears, a Queen Pine, Morello Cherries, Barrington and Noblesse Peaches, Violette Hâtive Nectarines, and a Melon. Third, Mr. Turner, Slough. With a collection of six dishes, Mr. Henderson was again first, having a Montserrat Pine, Mill Hill Hamburg and Muscat of Alexandria Grapes, Trentham Hybrid Melon, Violette Hâtive Peaches, and Elruge Nectarines. Second, Mr. T. Bailey, Shardaloes, with Black Hamburg and Muscat of Alexandria Grapes, an Enville Pine, Elruge Nectarines, Red Magdalen Peaches, and Moorpark Apricots. Third, Mr. T. Page, Streatham. Mr. W. Chapman, Streatham Common, had the best Queen Pine; the two next best came from Mr. J. Barnes, gardener to Lady Rolle, Bicton, Devon. In the Class for "Any Pine excepting a 'Queen,'" Mr. A. Henderson, Trentham, was first with a Providence. Second, Mr. T. Young, gardener to C. Bailey, Esq., M.P., with the same. Third, Mr. G. Cameron, Goodwood, Chichester. Mr. Lewis Solomon, Covent Garden, exhibited two splendid Queen Pines, one weighing 7 lbs., the other 6½ lbs.; they were "not for competition," Mr. Solomon being one of the Judges. Mr. Meredith, Garston, Liverpool, was first with a box of 12 lbs. of Grapes, having splendid Black Hamburgs; Mr. Hill, gardener to R. Sneyd, Esq., was second with the same; and third, Mr. Roberts, gardener to the Hon. A. Bury, Tullamore, Ireland, with Muscats. The competition was so good that three extra prizes were awarded in this class. Mr. Meredith was also first with three bunches of beautiful Black Hamburgs; Messrs. Hill, A. Henderson, Ornant, gardener to J. Levick, Esq., Epsom, being placed second; and third, Mr. Meredith. With a dish of Any other Black variety, Mr. W. Hill was first with Black Prince. Second, Mr. Meads, gardener to R. Currie, Esq., Farnborough, with the same. Third, Mr. W. Hill, with Bidwell's Seedling. With a dish of White Muscats, Mr. T. Frost, Aylesford, was first. Second, Mr. C. Penny, gardener to H. H. Gibbs, Esq., Regent's Park. Equal third, Mr. T. Frost, and Mr. J. Roberts. With a dish of Any other white kind, Mr. J. Wills, Oughton Park, Taporley, was first with Trebbiano. Second, Mr. J. B. Whiting, Deepdene, Dorking, with Muscat Hamburg. Third, Mr. C. Turner, Slough, with Buckland Sweet-water. With the largest bunch of any kind, Mr. Pottle, gardener to B. D. Colvin, Esq., Woodbridge, was first with Trebbiano, weighing 4 lbs. 7 ozs., cut from a Vine planted June 1st of the present year. Second, Mr. O. Goldsmith, Polesden, Dorking, with Black Barbarossa, weight not stated. Third, Mr. Meads, with Black Hamburgs, weighing 4 lbs. 14 ozs., but unripe.

Mr. A. Henderson was first with four dishes of Peaches and Nectarines, having of the former Noblesse and Barrington; and of the latter Pitmaston Orange and Violette Hâtive. Second, Mr. J. Monro, Rabley Gardens, Barnet, with Galande and Noblesse Peaches, and Red Roman and Newington Nectarines. Third, Mr. Hazell, gardener to Mrs. Tidswell, Denmark Hill. With a single dish of Peaches, Mr. A. Henderson was first with Violette Hâtive. Second, Mr. E. Broadway, gardener to Lady Ricardo, Exbury, Hants, with

Noblesse; and third, Mr. C. Lawson, Walburton Admirable. Mr. J. Monro was first with a dish of Nectarines, having Red Roman. Second, Mr. Broadway; and third, Mr. Meads, both with *Violette Hâtive*.

Sixty-two Melons were staged in the two classes appropriated to them. Mr. Webb, of Reading, was first with an unnamed green-fleshed variety. Second, Mr. W. Reid, Sydenham Hill, with *Egyptian*. With a scarlet-fleshed fruit, Mr. Westbrook, Abingdon, was first; and Mr. Goldsmith, Dorking, second, both with *Scarlet Gem*. Mr. A. Eman, gardener to Miss Troster, Epsom, was first with Brunswick and Brown Turkey. Second, Mr. Grover, Western Cottage, Hampstead, with the same. Mr. T. Dawson, Panshanger, was first with two dishes of Morello Chories; and second with Morello and Florence.

With three dishes of Plums, Mr. Snow, Wrest Park, Beds., was first with Jefferson's, Kirke's, and Green Gage. Second, Mr. T. Bailey, Shardaloes, with Washington, Danver's Victoria, and Prince of Wales.

Mr. T. Frost, Aylesford, was first with six dishes of dessert Apples, having Cornish Gilliflower, Cox's Orange Pippin, Quarrenden, King Pippin, Duchess of Oldenburgh, and another. Second, Mr. J. Harnington, Hammersmith, with Gravenstein, Cockle Pippin, Quarrenden, Ribston Pippin, King Pippin, and Cellini. With six dishes of kitchen Apples, Mr. R. Heather, Kingston, was first with Blenheim Orange, Dumelow's Seedling, Dr. Feathergut, Emperor Alexander, Shepherd's Fame, and Kentish Brading. Second, Mr. C. Frisby, Sleaford, with Dumelow's Seedling, Yorkshire Greening, Emperor Alexander, Kentish Brading, Tower of Glamis, and Blenheim Orange.

With six dishes of Pears, Mr. C. F. Harrison, Weybridge, was first with *Béurré Diel*, Marie Louise, Louise Bonne of Jersey, Bon Chrétien, Hacon's Incomparable, and *Béurré de Claireau*. Second, Mr. A. Sanders, with Marie Louise, Gansel's Bergamot, Bon Chrétien, Ambrosia, Easter *Béurré*, and *Béurré Rance*. With three dishes, Mr. Harrison was also first with Gratioli, Marie Louise, and Duchesse d'Angoulême. Second, Mr. W. Holder, Eton College, with Williams' Bon Chrétien, Marie Louise, and *Béurré d'Amanlis*. With a single dish of Pears, for weight, Mr. T. Frost was first with *Grosse Calabasse*, weighing 7½ lbs. Second, Mr. F. Barnard, no name or weight specified. Mr. Harrison was first with *Jargonelle* as the best-flavoured Pear; and Mr. Goldsmith, with Bon Chrétien, was second.

Messrs. H. Lane & Son, Berkhamstead, were awarded a first prize for Vines in pots; the same award was made to them also in the Miscellaneous Class for a like contribution. A second prize to Mr. A. Henderson for a collection of Grapes; and a third prize to Mr. Snow for *Apriots*.

Quo.

ROYAL HORTICULTURAL SOCIETY, *September 10th*.—The conservatory looked very gay indeed on this day from the combined effect of Dahlias, Roses, Hollyhocks, Asters, Verbenas, and Gladioluses. The various stands of cut flowers were ranged two deep, which made an inspection of the back row perilous to the occupants of the front tier. One testy exhibitor, who appears to be always in a bad humour, treated us to a bruin-like protest as we very lightly touched one of his flowers when reaching over to ascertain the name of the exhibitor of the stand beyond, as his flowers were already far in the rear, it did not prevent them from getting first.

Dahlias were again wondrously fine, Asters the same; Roses were remarkably good considering the season. Gladioluses, so plentiful at the Crystal Palace, were produced here but sparingly; but Mr. Standish had reserved some of his best for this occasion. Hollyhocks were very good, both as spikes and cut blooms.

Mr. Mitchell, Piltsdown Nurseries, Maresfield, was first with forty-eight varieties of Roses, three trusses of each; second, Messrs. Paul & Son; third, Mr. E. P. Francis, Hertford. With twenty-four varieties, three trusses of each, Mr. J. T. Hedge, Reed Hall, Colchester, was first; Dr. Cooper, Slough, second; and Mr. J. T. Hollingworth, Maidstone, third. With twenty-four varieties, single trusses, Mr. Turner, Slough, was first; second, Messrs. Paul and Son; third, Mr. J. Wright, Ivy Lodge, Twickenham. Selecting a few of the finest and best blooms, we met with *Evêque de Nîmes*, *La Reine*, *Gloire de Dijon*, *Madame Charles Crapelet*, *Triomphe de Rennes*, *Victor Verdier*, *Général Jacqueminot*, *Léon des Combats*, *Madame Vidot*, *Madam Rivers*, *Duchesse d'Orléans*, *Louis XIV.*, *Comtesse de Chabillant*, *Eugène Appert*, *La Ville de St. Denis*, *Senateur Vaisse*, *General Washington*, *Lord Raglan*, *Madame Knorr*, *William Griffiths*, and *Jules Margottin*. Prizes were offered for Roses in pots, but none appeared.

Mr. W. Chater, Saffron Walden, was first with twelve Hollyhocks in spikes, having Countess Russell, a pale rose; Morning Star, bright salmon crimson, a finely-formed flower; Governor General, bright crimson; Princess, purple lake; Ne Plus Ultra, light purple; Imperator, salmon buff; Rose Celestial, deep carmine, all seedlings; and Beauty of Milford, Miss Lizzie King, Lady King, Beauty of Walden, and Excelsior. Second, Messrs. Downie, Laird, & Laing, with Lord Loughborough, Mrs. Blackwood, Golden Fleece, Purple

Prince, Stanstead Rival, Prince of Hesse, Annie Elphinstone, Excelsior, Invincible, Lady Dacres, Miss Edmeads (a seedling, a great improvement on Mrs. Chater), and another seedling unnamed. Third, Mr. H. May, Bedale, Yorkshire. With twelve cut blooms, Mr. Chater was first, having Illuminator, Lady King, Monarch, Morning Star, Queen Victoria, Joshua Clarke, La Dame Blanche, Lady Dacres, Countess Russell, Fearless Improved, Hesperis, and a seedling. Second, Mr. H. May, with Lord Loughborough, Perfection, Illuminator, Invincible, Prince Charlie, Princess of Prussia, Empress, Garibaldi, Mrs. B. Cochrane, Miss Ashley, Mrs. Wardrop, and another. Third, Mr. W. Bragg, Slough.

Asters, though not in such strong force as at the Crystal Palace, were very fine; and Mr. Betteridge took the first prize in both classes. As usual, his "Quilled" kinds were models; and his "Flat-petalled" and incurved flowers, otherwise French, were superb. Mr. J. Betteridge, of Steventon, Berks, was second with Quilled kinds; and Mr. Sandford, gardener to T. Thomassett, Esq., third. Mr. Sandford was second with the French kinds, Mr. Betteridge having on this occasion distanced him. Mr. Wyatt, gardener to H. Wills, Esq., Epsom, was third.

With twenty-four spikes of Gladioluses, Messrs. Youell & Co., Great Yarmouth, were first, with varieties similar to those exhibited by them at the Crystal Palace. Second, Mr. J. Standish, Bagshot, who had some very fine seedlings of his own, including Coronation, blush, flaked with carmine, and blotched with rosy salmon; Mons. Blaire, pure white, pale lemon blotch on the lower segment, pencilled with purple; Champion, bright orange scarlet, with white and purple marking on the lower segment; Lurline, pale rose, flaked and feathered with carmine, and lemon blotch; Rifleman, vivid scarlet, with lemon and purple pencillings; Sir James Clarke, bright salmon scarlet, white and purple pencillings; Duke of Cambridge, carmine buff, blotched with purple; and Solferino, a small-flowering, but very showy variety, vivid scarlet, with large yellow blotch on the lower segment. Third, Mr. William Paul, Waltham Cross. With twelve spikes of Gladioluses, Brenchleyensis colour, Messrs. Youell and Co. were first, with Neptune, Comte de Morny, Mars, Mr. Youell (a brilliant orange scarlet, with white throat), Don Juan, Star of the East, Victor Verdier, Rembrandt, Achille, Othello, Napoléon III., and Dr. Andry. Second, Mr. J. Standish, with Paul Bedford (very fine scarlet spike), General Cabrera, Brenchleyensis, Samuel Weymouth, Murillo, Brandlet, Etna, Wallace, Don Juan, Dr. Andry, Richard Hall, and Garibaldi. Third, Mr. S. Cattell, Westerham. Extra, Messrs. A. Henderson & Co., Pine Apple Place. Messrs. Cutbush and Son were first with twelve Gladioluses in pots, one only in a pot, instead of three as stated in the schedule. The varieties were Othello, Madame Binder, Gil Blas, Eveline Bryere, Goliath, Hebe, Galathée, Janire, Vesta, Brenchleyensis, Empress, and Impératrice, the two last varieties being identical. Second, Mr. J. Cattell, Westerham.

Mr. Standish was first with twenty-four trusses of Phloxes; second, Mr. C. Turner; third, Mr. J. Salter, Versailles Nursery, Hammersmith. Mr. J. Cattell was the only exhibitor of dwarf Phloxes, perennial upright kinds grown in pots, and with good heads of flower; but having a great sameness of colour. The prize offered by Dr. Lindley for a specimen of the dwarfest and best perennial upright-growing Phlox was taken by Mr. Turner, who had Spenceri. Mr. Cattell, Westerham, had Mlle. Marie Lacroix.

Messrs. Minchin & Son, Hook Norton, Oxon, were first with twenty-four Verbenas; second, Mr. George Smith, Tollington Nursery, Islington; third, Mr. C. Turner, Slough; extra, Mr. Treen, Victoria Nursery, Rugby. They were extremely good, and contained the following selected as the best varieties:—General Simpson, Snowflake, Il Trovatore, Mr. Moore, Lady C. Shepherd, Lord Raglan, Earl of Shaftesbury, Warrior, Mrs. H. Stenger, Géant des Batailles, Mrs. Harrison, Great Eastern, Foxhunter, Reine des Amazones, Black Prince, Nemesis, Ariosto Improved, Souvenir de l'Exposition, King of Verbenas, and Zampa.

Dahlias were very fine as at the Palace, and the competition between Messrs. Turner and Keynes was very close indeed. One of the Judges contended strongly for the first prize to be awarded to Mr. Turner, the other two taking the opposite view. Two more gentlemen were called in, and Mr. Keynes carried the day. The easiest way would have been to have placed the two stands on an equality, by giving them equal first prizes, a distinction each collection of blooms deserved. Mr. Keynes had Lord Derby, Golden Drop, Imperial, Magnificent, Juno, John Harrison, Lilac Queen, Donald Beaton, General Jackson, Pandora, Cherub, Bob Ridley, Mrs. Dodds, Leopard, Hugh Miller, Chairman, Duke of Wellington, Pauline, Andrew Dodds, Lady D. Pennant, Baron Taunton, Mrs. Bush, Mrs. Critchett, Peri, Lord Wiltshire, John Keynes, Earl of Shaftesbury, Oscar, King of Sweden, Black Prince, Perfection, Jenny Austin, Beauty of Hilpertown, Model, Sir George Douglas, Lord Palmerston, Charles Turner, Mrs. Trotter, Norfolk Hero, Pioneer, Goldfinder, Le Premiere, Umpire, Souter Johnny, Lady Elcho, George Brown, Mrs. Walters, and Criterion. Second, Mr. Turner; third, Mr. H. May, Bedale, Yorkshire. With twenty-four blooms, Mr. Turner was first, having Mutabilis, George Brown, Mrs. Bush, Model, Delicata, Earl of Shaftesbury, Umpire, Chairman, Mrs. Stocken, Beauty of Hilpertown, Golden Drop, Lilac Queen, Lord Derby, Cygnet, Norfolk Hero, Lady Popham, Madge Wildfire, Capt. Harvey,

Hugh Miller, Peri, Sidney Herbert, Criterion, Chieftain, and Lord Palmerston. Second, Mr. Keynes; third, Mr. Cattell. With eighteen Fancies, Mr. Keynes again came to the front, having fine flowers of Queen Mab, Conqueror, Triomphe de Roubaix, Lady Paxton, Gem, Starlight, Mary Lauder, Pauline, Souther Johnny, Garibaldi, Le Premiere, Patent, Confidence, Nora Creina, Harlequin, Baron Alderson, and Reliance. Second, Mr. Turner; third, Mr. Cattell. With twenty-four varieties, for amateur exhibitors, Mr. J. T. Hedge, Reed Hall, Colchester, was first with Madame Ginte, Mrs. Crawford, Heroine, Madge Wildfire, Cherub, Emperor, Juno, Commander, Alice Downie, Standard Bearer, Inaccessible, Admiral Dundas, Pandora, Lady Popham, Criterion, Lord Palmerston, Neville Keynes, Beauty of Hilpert, Norfolk Hero, John Keynes, and Chairman. Second, Rev. C. Fellowes, Shottisham Rectory, near Norwich; third, Mr. C. J. Perry, Castle Bromwich, Birmingham; extra, Mr. W. Corp, Salisbury. With twelve blooms, Mr. W. P. Barnard, Darlington, was first with Dinorah, Lilac Queen, Mrs. C. Waters, Marquis of Bowmont, Lady Popham, Beauty of Hilpert, Jenny Austin, Chairman, Mrs. P. Bailhache, Lord Derby, Lady Pennant, and George Elliot. Second, Mr. W. Corp, Salisbury; third, Mr. T. Charlton, Market Harborough; and extra prizes to Mr. J. Harris, Chelmsford, and Mr. R. Hopkins, Brentford. With twelve Fancies, Mr. W. Corp, Salisbury, was first with Lady Paxton, Mary Lauder, Gem, Confidence, Garibaldi, Pauline, William Corp, Queen Mab, Reliance, Elegans, and Harlequin. Second, Rev. C. Fellowes; third, Mr. C. J. Perry.

The Class for twelve Bouquet Dahlias brought no competition. In the Miscellaneous Class a large quantity of things were staged. Messrs. Veitch & Son, and Messrs. J. & C. Lee, had collections of fine-foliaged plants; Mr. Bull, new and rare plants; Messrs. A. Henderson & Co. had Caladiums; Messrs. Ivory & Son, Dorking, a collection of hardy Ferns; Messrs. Cutbush & Son had some well-grown plants of Japan Lilies; and Mr. Cattell, some Helichrysums.

The prize offered by a Fellow of the Society for a Group of Standard Plants for Table Decoration, was awarded to Messrs. Veitch & Son. Most of them were in silver-plated stands furnished by Elkington & Co., the eminent silversmiths of Regent Street, and consisted of Fuchsias, Capsicums with fruit, Tropæolum Eclipse, Petunia Inimitabilis, &c. Messrs. Bull, Salter, and Macintosh, of Hammersmith, also exhibited.

A large number of contributions were sent for the inspection of the Floral Committee. The most noticeable were Verbena Rugby Hero, from Mr. Treen, Rugby, to which a First-class Certificate was awarded. It is a large rosy lilac, having a centre of vivid carmine surrounding a white eye. The same award was made to Mr. Keynes for Dahlia Patent; to Messrs. Ivory, and to Mr. Parsons, Welyyn, for seedling Athyriums; and to Messrs. E. G. Henderson & Son, for two beautifully marked Variegated Geraniums, Lucy Grieve and Italia Unita. Mr. W. Clater had some seedling Hollyhocks, and several seedling Dahlias were produced, the best being those mentioned in the report of the Crystal Palace Show. Quo.

REVIEW.

A Practical Treatise on the Cultivation of the Vine. By WILLIAM THOMSON, Gardener to His Grace the Duke of Buccleuch, K.G., Dalkeith Park, Scotland.

If all works on gardening like the present treatise had been written in the same plain common sense manner, teaching by books would have been more profitable than we know to be the case. Of the author of this sensible and practical work, we may briefly remark that he holds a foremost place in a profession containing some remarkable men, and that he is as much esteemed for his high moral and intellectual worth as for his practical skill as an horticulturist. The work now before us enters into all the conditions of Grape-culture, giving in detail clear and concise instruction how to rear, grow, plant, and fruit the Vine, with all other particulars as to form of house, heating, and aëration necessary to produce in perfection the year round this valuable fruit. Want of space prevents us giving extracts, and we must, therefore, conclude by saying that as the author is one of the very best Grape-growers of the day, this book may be stated as being the key to his successful practice, and as such we can with confidence recommend as indispensable to all who wish to excel in the cultivation of the Vine.

CALENDAR OF OPERATIONS.

CONSERVATORY.

No time should now be lost in getting-in all the plants, if from any cause they have not been housed already. See the pots are all well washed, the plants

neatly tied, and clear of insects. Be careful not to crowd them; and in arranging, the plants in flower should be distributed over the house with taste. All the air possible should be given in fine weather, but

strong winds must be carefully guarded against. As the house will now be more frequented than it has been for some months, a dry comfortable atmosphere should be maintained. Fire heat will only be necessary to dry-up moisture in the house, and to keep out frost, should severe weather set in towards the end of the month, as sometimes happens. Azaleas, Camellias, and other plants swelling their buds will require liberal supplies of water. All plants done growing and at rest must be very carefully watered, and only when necessary. If not already done, a good stock of bulbs should at once be potted for winter and spring flowering. Keep everything in the neatest order.

GREENHOUSE.

Any plants not yet housed should be got in without delay. Admit air freely during the day in fine weather, and a little at night as long as the thermometer out of doors stands at 45°. The great point to be attended to during the ensuing months is to keep the plants in as healthy a state as possible, neither allowing them to be injured by very dull cold weather, nor to be excited into unnatural growth by artificial heat. Pay especial attention to the young stock. Water when necessary, but be careful the soil gets neither too dry nor too wet. Keep the atmosphere as dry as you can by ventilation. Fire heat should only be used to exclude frost.

STOVE.

Clerodendrons, Allamandas, Dipladenias, and similar plants should be placed at the warmest part of the house, and have full exposure to sun and air to ripen the wood; they should be so arranged as not to appear unsightly. Fine-foliated plants should now occupy prominent places. Pay attention to Gesneras, Justicias, Begonias, Euphorbias, Poinsettias, and similar plants that flower through winter. By keeping a good stock of these plants and a few nice ornamental-foliated plants, the house can be kept to look as gay in December as in July.

FLOWER GARDEN.

Continue to keep the garden as neat as possible by removing all decayed flowers and leaves, and by keeping the grass, beds, borders, edgings of all kinds, walks, &c., in the best possible condition; by these means a neat appearance can be maintained until all is made desolate by a night's frost. No time should now be lost in getting-in cuttings, if a sufficient stock be not already struck. Attend well to all rooted cuttings; give them an abundance of air when the weather permits. Be careful in watering, especially those that are in pits or frames, as damp is the greatest enemy they have to contend with for the next four months. Take-up and pot any plants that are intended to be kept up over the winter, before they are injured by the frost. If placed on a little bottom heat they will soon make fresh roots, and will winter much better. Dahlia roots should be lifted before there is much frost, and dried and put away. Towards the end of the month the old roots of choice Hollyhocks should be taken up and potted or planted in a cold frame to winter. For spring-flowering plant Pansies, Wallflowers, Cowslips, Primroses, &c.; and towards the end of the month plant Aconites, Anemones, Snowdrops, Crocuses, Jonquills, Hyacinths, &c. Should any improvements be intended, it is better to commence them at once than to defer them till spring, when they are sometimes hurried in trying to get them completed by "bedding-out" time. *Pleasure Grounds*.—Commence alterations at once, and push them forward before bad weather sets in. Plant trees and shrubs of all kinds; if properly removed now they will start into growth in spring with nearly as much vigour as if they had never been transplanted. Secure well to stakes all large trees to prevent them being blown about by the winds. Take advantage of fine weather towards the end of the month to run the machine over the grass or the last time this season. Sweep and roll walks. Attend above all things to neatness.

FORCING.

FRUIT.—*Pine Apples*.—Plants that are swelling fruit must have liberal supplies of water and a warm

moist atmosphere. Fire heat will now be necessary to keep the temperature about 70° by night and from 80° to 85° by day. Air should be given in favourable weather. Plants that are intended to be started in January should now be allowed rest to store-up nutriment for the future fruit; they should have little or no water, plenty of air, a dry atmosphere, and the temperature at night should not be less than 60°. Succession plants will now require more room. If the material for bottom heat is not likely to give a sufficient bottom heat during the winter, it should now be partially or entirely renewed. After the plants are fresh plunged take great care the bottom heat is always as near as possible about 85°. In fine weather give plenty of air during the forenoons, but always close up early. *Vines*.—Houses where Grapes are ripe must be kept cool and dry; in wet weather a little fire heat will be necessary during the day to dry-up damp. Good fires and plenty of air must be given to houses when Grapes are not yet ripe. Take every care of them as they should hang fresh till March, when the new ones should be ready to succeed them. The early house should now be started. Give the inside borders a good soaking of water; the outside borders, if not heated by hot-water pipes or other means, must have a good covering of fermenting materials. Very little fire heat will be required this month, except in case of frost. Syringe the Vines two or three times daily, and keep up a moist atmosphere. *Peaches and Nectarines*.—Put the lights on the early houses about the middle of the month, but give all the air possible both by day and by night. The lights may remain off the late houses a week or two longer. *Cherries*.—If it be desirable to increase the stock of plants the present is a favourable time. Nice young plants should now be procured, and if not already in pots they should at once be potted and plunged in an open situation. *Figs*.—These will now be at rest. It is best not to expose the wood to much frost, but the trees should have plenty of air. *Strawberries*.—If our previous directions have been attended to, these should now be first-rate plants; they should not have much water now, and all runners should be pinched off. *Cucumbers and Melons*.—Give late Cucumbers plenty of air during the early part of the day. Keep a moist atmosphere, and a night temperature of at least 70°. Keep the shoots properly regulated, and on no account let them get crowded. Late Melons must have a good heat to ripen the fruit properly.

HARDY FRUIT.

Continue to gather Pears and Apples as they ripen, and store carefully all the fruit. Look over those previously stored, and pick out any bad ones there may be among them. Fruit trees of all kinds may now be planted if the ground is in a proper condition. Look over Peach and Nectarine trees and remove all superfluous shoots. A few weeks' hot dry weather is much wanted to ripen the wood of all kinds of fruit trees.

KITCHEN GARDEN.

Continue to earth-up Celery when dry. *Cauliflowers* sown in August should now be either pricked-out into frames, or under hand-glasses. *Hammer-smith Hardy Green and Black-seeded Bath Cos Lettuces*.—Plant on warm borders for spring use. Cauliflowers that are hardy should be often looked over for slugs; break a leaf or two over the hearts to throw off snow and rain. *Potatoes*.—Take up and store away. *Beet, Salsify, Scorsenera, Carrots, Jerusalem Artichokes, and Parsnips*.—Take up and store away in dry sand. Remove all crops of whatever kind that are done bearing; and clean, and manure, and dig, or ridge-up as wanted. Stir the ground between winter crops in fine dry weather. Autumn weeds will now be troublesome, especially if the weather be soft and favourable to their growth. *Winter Spinach*.—Thin and hoe in fine weather. Keep the hoe constantly going in fine weather. *Broccoli*.—Towards the end of the month lift and lay, with the plant inclining to the north: this checks luxuriant growth and enables it to stand the winter better. *Endive*.—Tie-up when dry; if slugs are troublesome give them plenty of quicklime.—M.S.



Rhododendron
Princess Alice.

RHODODENDRON PRINCESS ALICE.

WITH AN ILLUSTRATION.

THE acquisition in this country of the fine species of *Rhododendron*, which, grown on the cool hills of India, was a great fact in garden botany, and we are now beginning to reap some of the advantages which have sprung therefrom. It had all along been felt, that as garden plants, they would be less important in themselves than in respect to the progeny which it was expected would spring from them; and, in consequence, many heads and hands were set to work in hybridising them one with the other, in various ways, as desirable crosses suggested themselves to the mind of the operator. Now the fruits are beginning to fall in. During the past spring alone some half dozen or more of fine white and for the most scented varieties have made their appearance in public; and on one day at Kensington three of these received First-class Certificates. The certificated plants bore respectively the names of *Countess of Haddington*, *Sesterianum*, and *Princess Alice*.

The last-mentioned of these, RHODODENDRON PRINCESS ALICE, is the subject of our present illustration. It is a hybrid raised between *R. Edgworthii* and *R. ciliatum*, and is in the hands of Messrs. Veitch & Son, of Exeter and Chelsea; by whom it was exhibited along with *R. Sesterianum* on the occasion referred to, and to whom we are indebted for the specimen figured.

The principal features of this variety, which we anticipate will be a very useful one in the hands of cultivators, are its dwarf bushy habit, its flat clean-looking foliage, and its delicately-perfumed white flowers. The leaves are rather small, oblong-lanceolate, acuminate, and very slightly rugose on the surface. The flowers are moderate-sized, bell-shaped, white, with a flush of pink outside, and scented like the parent *Edgworthii*. The plant well deserved the First-class award which was made to it; and, moreover, well deserves general cultivation.

M.

RELATING TO STRAWBERRIES.

1. *The Fragarium*.—This should be a dead flat, and lying open to the morning, midday, and setting sun. It should be free from the shade of trees, and from the intrusion of their roots. A pump should be near.

2. *Soil*.—The best soil for Strawberries is that which most abounds in potash, which is the grand constituent of a Strawberry. Any soil can be made to bear them. They, like Roses, have an affinity for alumina; but I would undertake to grow them in sandy or chalky soil. The best compound is in equal thirds—clay, black dung from a decayed heap, and sand or ashes. If the land is stiff clay, unfermented manure is better than decayed, and sand or sifted cinders, or burnt field ashes are indispensable to keep the land open. The land, of whatever kind, should be deeply trenched.

3. *Planting*.—The best time for planting is in the spring, or early in the summer. The runners must be kept off. My new plantations, with the exception of spring-planted trial plants, were put in by the 24th of July, and are now strong plants that will fruit next year. August and even September may not be too late for sorts of quick growth and establishment; but they are too late for sorts *generally*, and for such seasons as we have lately had. Such late-planted sorts should be disfruited in the spring, and should have their runners kept off; and in the year following they will come out in their true form, and will well repay for the delay. The runners, unless wanted, should be at all times cut off. After fruiting dress the plants and water them “thoroughly;” they will then make

fresh roots from the base and send up protective foliage, and look handsome in winter. A layer of 2 inches of new maiden earth from the country placed over the ground is a capital dressing.

4. *Manures*.—Cowdung is the best, as it contains more potash than any other manure. Guano and wood ashes, which also contain potash, are good, but they must be used prudently. I use chiefly black decayed dung, half-inch bones, and nitro-phosphate; the two last I use at planting time, the other is used at all times. I also use liquid manure at the spring, which I put, not into the ranks, but between the ranks (2 feet apart); and this, washed down by the rain, affords food for the plants in fruiting time: this is the safest place for guano. If guano is used as a liquid, one handful to a stable-bucket of water is sufficient: this may be put into the ranks.

5. *Treatises*.—The best treatises for Strawberry-culture are McEwen's, Underhill's, and Cuthill's. To these I must refer the reader.

6. *Catalogues*.—These are usually too "fat." The good, bad, and indifferent are not sufficiently distinguished. Mr. Rivers' is a good selection, fifty-six sorts.

7. *Alpines*.—Every garden should have some Alpine or another for September and October. The old Red and White are still good. The Red and White Bush Alpine are the least trouble, having no runners. La Meudonnaise (Parsley-leaved) is here, but it has not been so good as the above; it tastes like the wood Strawberry. The plant itself is very pretty. Mr. Rivers in his letter speaks thus of Blanche d'Orleans:—"This is now (September 12), bearing large fruit, melting and delicious." Of Galande he says, "I had a fine dish of this sort to-day for dessert. It is the largest and best of all." The former is white, and the latter deep red. My plants of Galande died last winter. With regard to the size of the Alpines, I must observe that their size in a great measure depends upon recent raising from seed. Perhaps this is the reason why Blanche d'Orleans gives larger fruit than the old White. The Red and White Bush Alpines require to be occasionally fresh raised. They are all good with sugar and Alderney cream, or with sugar and sherry.

8. *Hautbois*.—The handsomest, as a plant, and the most robust and muskiest is the Black Hautbois, but I threw it away as too small. The monstrous Hautbois is good; but it is not so good, nor is it larger than Belle Bordelaise, which is a very good Hautbois. The best (on short acquaintance) has been, this year, No. 1 seedling raised from Belle Bordelaise by Mr. Rivers. This is large, an abundant bearer, and rich; and, so far as one strong plant goes, quite a success. It will not be let out this year. I believe it will be called "The Royal Hautbois."

9. *The Queen and her race*.—The Queen is still the great A 1; she is firm without being hard, juicy, sweet, rich, and yet brisk. No other Strawberry has got these combinations in such high perfection. The Queen and her race are good where they can be grown—viz., Magnum Bonum (much like her), Carolina superba, Filbert Pine, Myatt's Pine Apple (I fancy the Queen was derived from this and the Chili Orange), Hendrie's Seedling, M. Eliza Vilmorin (like the Queen, and raised from the Queen and Chili Orange), Rival Queen, Nimrod, Admiral Dundas, and Scarlet Pine. I have retained only the Queen and this last, which is very healthy, hardy, and of excellent flavour. I have put the Queen in the eye of the north and west wind, and she is very healthy, strong, and of a dense green. I put Eliza by her side and disfruited both this spring. The place is so severe that I could not grow Roses there. The drainage is free, and without that you will never grow the Queen; she does not care, where she likes the soil, one farthing for exposure.

10. *Early Sorts and Late*.—I do not much care for either of these, as they both are usually lacking in flavour, unless protected with ridge-vineries glass.

The May Queen, Black Prince, Alice Maude are three good early sorts; Eleanor, Frogmore Pines, and Salter's Jucunda are three good late sorts. Elton Pine is hardy, handsome, useful; but here extra sour. I think the Frogmore Pines will be great favourites. Eleanor is the noblest and handsomest of all large late Strawberries.

11. *Large Sorts and Good*.—Empress Eugénie, Wonderful, Duc de Malakoff, Trollope's Victoria, Le Marguerite, very handsome and interesting, also very hardy. Large Strawberries usually are not so good in quality and flavour as more moderate-sized ones.

12. *Good Family Sorts*.—Where there are lots of children, good bearers and tolerably large fruit are required. The following will be found useful:—Empress Eugénie, Wonderful, Trollope's Victoria, Alice Maude, Ne Plus Ultra, Rivers' Eliza, La Constante. The three first and two last are my mainstay here, and worthy of general adoption. The Marquise de La Tour Maubourg and Bonté St. Julien are both hardy, good croppers, and of tolerable flavour. The Marquis is handsome. The plant is beautiful.

13. *Pine Strawberries*.—The Bioton White Pine is large, handsome, and of peculiar flavour. It is a heavy cropper and the best. Its colour, when ripe, is amber white.

The Brittanv White Pine, were it a good setter, would be the best. It is very fine-flavoured. Under glass it is well known that Strawberries do not retain their fine flavour. There is one, a very great cropper under glass, with all large fruit, that is very highly pined under glass (worthless here out of doors as regards flavour)—viz., Ananas Lecoq, vulgarly called Ananias. I sent it to Critchill to be forced. I reviewed it with Mr. Sturt, and tasted it. The plants were dry and the calices reflected, but the crop was great, and the flavour was the best that I ever tasted under glass. The fruitstalks of this sort are as thick as an Oxlip stalk.

14. *Forcers*.—Keens' Seedling is the best I ever saw. I do not practise forcing myself; I saw, however, forced plants and fruits at Dorchester exhibition, last June twelvemonth, of the following, and they were extra beautiful and well done:—British Queen, Carolina Superba, Sir C. Napier, also fine gathered fruit of Oscar. They were the property of my friend Captain Foster, brother of the late Mr. Foster, of Clewer: they were all winners. He told me, on that occasion, that Strawberries for forcing could not be rammed into the pot too severely. Like his lamented brother, whatever he does, he does well.

15. *Likely Novelties here*.—Eclipse, Sanspareil, both are most healthy plants. They both portended flavour. Eclipse is well-formed and handsome; Sanspareil is long and necked. I have not fruited the following foreigners, but I can speak of them as plants:—Le Choix Connoisseur is excellent, as is Bosselot Seedling No. 1. Lucas, Emma, and La Grosse Sucrée are nice plants. I have saved a few runners of the first, as its leaves are so stout, and the plant is so handsome and so suitable to my country—Ituræa Trachonitis, or the rough country.

16. *A Good General Selection*.—Localities, soil, circumstances, are so diverse, that no one can unerringly select Roses or Strawberries for another; but probably the following would fulfil the greatest number of requirements. The Alpines and Hautbois tribes before mentioned, may be safely selected from. British Queen, Filbert Pine, Carolina Superba, Bioton Pine, La Constante, Eliza (Rivers), Wonderful, Empress Eugénie, Trollope's Victoria, Prince of Wales (Ingram's), Alice Maude, Black Prince, and Keens' Seedling; to which may be added Eleanor and Frogmore Late Pines. I should think that a man who had this lot in his garden, in good condition, need not fear to say, "Circumspice."

17. *The Great English Strawberry*.—Were I asked, so far as my locality is concerned, which is the most accomplished Strawberry, combining with invariable good flavour all the talents, I should say at once, Rivers' Eliza. It is not quite equal to the Queen and some of her race; but it borders near the Queen in flavour, and as to general attributes, it will beat her and her whole race put together. Such fragarians as Dr. Roden, of Kidderminster, and Messrs. May, Hector, and Ingram, of Blandford, my three kind neighbours, will grow the Queen with almost unerring success, their soils being very suitable to her; but they are the only persons that I know who can, year after year, grow her majesty. Mr. May never fails. I have seen as many as fifty big Queens on a plant. The soil is alluvial, by the river Stour, and it is deep, rich, and good. He manages Strawberries better than any one that I know. He has no trees to interfere with their roots; and the sun, concentrating its rays between two narrow walls, gives him the benefit of a forcing-house out of doors. I have seen there, however, the truth of what Mr. Saul has said in the *Florist*—viz., her foliage burnt up, and her immense crop stewed. The best supplies for the Queen and her race are Eliza, Wonderful, and La Constante, three great croppers, and generally growable.

Rushton Rectory.

W. F. RADCLYFFE.

GLADIOLUS AS A POT PLANT.

Good gardeners have told me that you cannot succeed with blooming Gladioli well in pots; but having a good deal of decoration to carry out, I was induced to try them, and really I am quite satisfied with the result. I potted my bulbs in April last, using pots 7 inches deep and 6 inches wide, which shape I use for bulbs generally. I employ a rich sandy loam, or good Hyacinth soil, and the pots are buried in old tan until the leaves appear, when this material is cleared away down to the surface of the pots. About June the pots are set thinner and in the full sun, merely filling-up the space between them with plunging material. They now require manure water twice a-week, and the flower-scapes tying-up as they appear. About the beginning of August the blooms are commencing to open, and they are made use of. One especial use for them is to fill-up central beds in the flower garden, which have been occupied with such things as Liliiums, tall Lobelias, &c., mixed with Cineraria maritima, and Ribbon-grass. Either of these, mixed with parti-coloured Gladiolus, is magnificent. They also have a fine effect mixed with fine-foliaged plants, as Cannas and Caladiums; to the former, especially, they give colour and contrast of leaf; and, as they continue to bloom until frost comes, are invaluable. I also use them for decorating balconies, entrance halls (again mixed with Cannas), and any places where colour is desired in contrast to masonry I find so useful, that, against the commonly-received opinion, I ask my brother gardeners to try them when frost sets in. The pots are easily removed to any spare vinery, and any blooms remaining come in admirably as cut flowers, for which nothing is better adapted; but for this object they should be grown in beds.

W. R. S.

GOLDEN HAMBURGH GRAPE.

HAVING fruited Golden Hamburg for four successive years, with some six other varieties, in a vinery where the fruit usually ripens about the first week in September, I am obliged to endorse the opinion expressed by your corre-

spondent "S. T." in last month's issue, and to state that with us it has proved a shy bearer, and many of the bunches being disposed to run off into claspers, while in other cases the bunches have been long and loose, the berries swelling well until the colouring process commences, when they have in every instance shrank and dropped off, so much so that the bunches have frequently become useless, or nearly so. Some of the berries in the bunches, however, may have ripened. Where this has been the case, the berries were large and of a fine amber tinge; but then they, like the Stanwick Nectarine, require to be eaten immediately they are ripe, and consequently cannot by any means be compared with the Muscat or even the Royal Muscadine, either for flavour or keeping properties. I have a Vine of the latter variety in the same house, which annually produces splendid Grapes of a delicious flavour, which, I think, is peculiar to itself. I have also grown and fruited the Golden Hamburgh in pots, but with anything but success compared with other varieties where growing under the same conditions.

From these facts I am led to infer that instead of this Grape proving the best White Grape in cultivation, it must be classed among the inferior varieties, to be eventually superseded by such varieties as Buckland Sweet-water, Muscadine, and other good old sorts.

Whilst on the subject of Grapes, allow me to state we have in the same house Trentham Black, producing splendid bunches of Grapes of a very rich, vinous, full, juicy flavour, and always colouring well of an intense purplish-black, profusely covered with bloom. This I have found in every way a very desirable Grape, and one that would not disappoint if planted in any late and mid-season vinery.

Dorset.

H. M.

WINTER CUCUMBER-GROWING.

THERE is probably nothing new in my system; but as I, in common with others, still see and hear of failures and complaints that they will not grow, refuse to bear fruit, that they canker, and that the mysterious Cucumber disease (which some say proceeds from the same cause as the Potato disease, on which point I will say nothing more than in gardens where, previous to the appearance of the murrain, Cucumbers grew without any care they will scarce grow at all), has attacked the plants, they of course are at a standstill, if not getting "beautifully less." It is evident the successful management of this useful addition to the salad is not so well understood and acted upon as it ought to be.

I have seen a temperature of 80° by day and 70° night, top, and 85° bottom heat kept up in November and December, with steam enough for brewing at the same season; while another very clever authority on the same subject gravely informs us he was extra successful with a day temperature of 65°, and night ditto from 50° to 55°, and often found it early of a cold morning below 50° with no bottom heat at all. I should not expect to cut many fruit by the first-mentioned plan, as the plants would be forced into a weak unfruitful growth, and would certainly be only fit for the rubbish-heap by March. By the second method I should not expect any fruit from December until March, for the plants would be only kept alive. If the plants had not been overcropped previous to December they would possibly, with the increase of daylight, sun heat, and an increase of artificial heat bear fruit again in March, earlier and more free than young plants would do, as the plants would be so hardy.

A few causes of failure from personal experience may not be out of place. One is growing a long summer variety, which at the best is only fit for the

cook, or for exhibition; and as a dozen fruit of a small sort may be grown in the same space as a brace of the large sort, I think where a daily supply is wanted, if for no other reason, the small variety is preferable.

A second cause of failure is too much water at the root, and too frequent syringing of the foliage. I never use the syringe over the plants from the middle of October until the middle of February, and probably the plants are not watered at the root more than once a fortnight during the same time. Of course, if it is a bright dry October or January the plants may require a more frequent watering. But any gardener can see when a plant requires water.

I will say nothing of varieties, for some growers prefer Kenyon's, Kenyon's Improved; others Sion House, or Sion House Improved; or some of Cuthill's really excellent varieties; while many growers have a favourite hybrid or supposed hybrid of their own, which, if a good cropper and answers their purpose, is no doubt as good as any of the Stars, Victories, Conquerors, or Champions which come out annually at a large price for a very small packet of seeds; and will, perhaps, be an old acquaintance with a new name, or probably not so good as sorts you have discarded, the seeds and purchaser being sold at the same time.

I prefer growing my plants from cuttings, which I select clean and healthy early in August; put them singly in small pots under hand-glass in Melon-pit; they are rooted through in a few days. I then pot the plants into 6-inch pots, in equal parts of good loam and decayed leaves, taking care always to use leaves free from fungus spawn, as the smallest particle of that would run through the bed in a short time after the plants were planted and poison the whole mass of soil. I saw a case of that sort last spring, and the soil and plants had to be cleared out just as they ought to be making a good start.

I give the plants another shift to a pot 2 or 3 inches larger as soon as the roots reach the sides of first, and tie the plant to a stick, but do not stop the leader at all until after planting, when it has almost reached the top of the pit, but keep the side shoots stopped as fast as they make a joint.

I plant out as early in September as I can get the second crop of Melons cleared from the pit, keep rather close for a few days, and then give abundance of air; often the lights half off when very hot, and syringe every afternoon when bright, and shut the pit up for an hour, and then give air again.

As the soil at that season is generally warm enough everywhere it seldom requires warming in the pit previous to planting, so I generally clear out Melons in the morning, fill-in for Cucumbers, wash lights, rafters, &c., and give every part a good scalding with boiling water; whitewash walls, get in soil, and plant the Cucumbers in the evening. I have a flow and return 4-inch pipe under the bed, with 4 inches of rough stones over them, over which I put about 18 inches of partly decayed manure which has been nicely sweetened in a lining of a hotbed. If at all dry I give it a good watering with boiling water, which kills woodlice, &c., as well as moistening the litter, which will heat of itself for a short time; and, of course, the heat of the pipes assists and makes it continuous, and the Cucumber roots go down into the dung and have the benefit of a dung bottom heat without any of its disadvantages.

The soil I use is two parts good yellow loam, the top spit from an old pasture carted and used fresh direct from the ground chopped very rough; one part couch grass as raked from the ground preparing for Turnips, and one part decayed leaves, with the addition of a few barrowfuls of small charcoal and coarse sand. The body of soil is about 15 inches thick, and I had top-dressings of the same compost as the roots come to the surface and the bed sinks, which it will do to some extent from the loose open nature of the soil, although I tread it firm after planting.

I train the plants to a trellis a foot from the glass, and as they grow they show fruit at every joint; but we have usually plenty of fruit in frames until November, so I keep almost all pinched-off. At the same time the shoots are stopped to give the plants extra strength. I give a bottom heat of 80° to 85° through October, with a day temperature of 70° to 80° sun heat; night heat 65° to 70° with air—in fact I have, until the nights get very cold, each light down quite 3 inches and often 6 inches, and as the soil is soon full of roots, in the bright autumn days they often require a good soaking of water, and the evaporating-pans kept full of water; but in the dull short days I leave the pans empty, nights especially, in sharp frosty weather, and only sprinkle the bed and walk, excepting in dry days; but then I have the pans empty by night. I allow the bottom heat to gradually go down to 70° , and top heat to about 60° night and 70° days, and never stop any shoots for about two months in the dead of winter. I fumigate with tobacco paper once a-week, and sprinkle a little flowers of sulphur on the pipes occasionally to keep down thrips and red spider; and as the days lengthen and light increases, gradually raise the bottom heat to the early autumn range, and the top heat from 75° to 80° , syringe and shut up early on bright days, and by the beginning of March the plants will be in full vigour again.

By this method I have always plenty of Cucumbers through the winter from a small number of plants—in fact, I have never been without Cucumbers for four years at any time, and the plants bear better than young plants in the spring, and would continue through the summer; but the pit is required for other purposes, and dung-frame Cucumbers require less attention than by any other method in the summer.

I may add I grow a hybrid raised here, but which I have never been able to seed, but kept it by cuttings—a plan which I prefer, as the plants do not grow extra strong at first but will bear from the cutting-pot.

Teddesley Gardens, Stafford.

JAMES TAPLIN.

SMOOTH CAYENNE PINE APPLE.

As there appears a difference of opinion among your correspondents as to the merits and faults of this Pine, I have taken the liberty of offering a few remarks from my own experience of several years' trial.

I consider it one of the most useful Pines grown for autumn and winter use, but as a summer fruit I will not say so much in its favour. It certainly does not keep so long when cut as the Black Jamaica; but I do not make a rule to cut Pines as soon as ripe if I want to keep them for any length of time, but cut off about half the length of leaves, and stand the fruit in a cold fruit-room, and cut the fruit when required for use: by so doing I often keep them for three or four weeks in perfection, which I think is long enough under ordinary circumstances. I do not know any Pine so easily grown as the above, as it grows and roots so free and strong, making large stocky plants in a very short time, but making very few suckers. Where large showy Pines are required through the winter, the Smooth Cayenne is the only variety to be depended on.

I have seen the fruit, as "M. S." remarks, begin to decay at the bottom before it was ripe at top; but I think that is seldom the case when moderately dry at the root and in the atmosphere at the time of colouring. I have also heard complaints of the fruit cutting black at the centre when sent to table, which I think is the case with all Pines if the blossom is wetted when in flower, or if the atmosphere is too close and moist at the same stage, more especially when

in bloom late in the autumn, and I do not think it more liable to the last fault than the Black Jamaica.

Your correspondent "M. S.," in your last Number, referred to the Smooth Cayenne grown at Bowood several years ago. I may mention it is still grown there as a winter Pine, and I believe from the original stock; so I think there is no doubt of his having the true variety.

I think it would be a great mistake to grow and depend entirely on any one variety of Pine, either for winter or summer use, when both size and quality were required, and both are generally expected in large establishments.

The principal demand is generally May until August, and from October until February. For the summer season, Ripley Queen for quality and general use, and Providence for size, a few of which, to come in in succession through the summer, well grown, have a noble appearance on the dining-table, which is its only recommendation. For autumn use, the Black Jamaica as a fine-flavoured fruit, and cannot be dispensed with at that season; and the Smooth Cayenne as a fine handsome fruit at that season. It has no equal, and in my humble opinion is worthy of the highest recommendation I can give it.

S. TAPLIN.

LADY DOWNE'S GRAPE.

WITH AN ILLUSTRATION.

For several years there was to be found in various gardens in Yorkshire a late Black Grape, known by the name of Lady Downe's Seedling; it possessed considerable local reputation, and ultimately it made its appearance in the south. No great noise was made when it was ushered into the world; its advent was not announced by loud encomiums and stirring paragraphs, but nevertheless it forced itself on the attention of some of our best Grape-growers, and it is to them that Lady Downe's Grape is indebted for the high reputation it now enjoys.

Three or four years ago Mr. Hill, gardener to Ralph Sneyd, Esq., of Keele Hall, Staffordshire, adopted this as one of the varieties on which to exhibit his great skill in Grape-growing, and the specimens he exhibited at the metropolitan exhibitions are well known to the frequenters of these annual festivals. Mr. W. Thomson, gardener to his Grace the Duke of Buccleuch, Dalkeith Park, has also contributed to extend the reputation of this excellent Grape by so managing it as to have it as plump and fresh in the months of March and April as new Grapes.

As a late-hanging variety it is, perhaps, unsurpassed by any other, taking all its qualifications into consideration. The bunch we have illustrated is necessarily a small one to enable us to get it on to the plate; but as grown by Mr. Hill, and exhibited by him this season at the Royal Horticultural Society's Fruit Exhibition, the bunches were as large as the largest Black Hamburgs.

The bunch is large, sometimes shouldered, and sometimes cylindrical. The berries are also large, roundish, or roundish-oval; and, when well grown, an inch in diameter. Skin rather thick, tough, and membranous, reddish-purple at first, but becoming quite black when fully coloured, and covered with a delicate bloom. Flesh dull opaline white, very firm, sweet, and richly flavoured, with a faint trace of the Muscat aroma.

This is a very valuable Grape. The Vine is very healthy and vigorous, and the fruit is greatly improved by the Vine being grafted on the Black Hamburg as Mr. Hill grows it.



Lady Down's Grape

Culture: Zeno, 3^d Skinner 5th

A SHORT VISIT TO KEW GARDENS.

AFTER entering these lovely gardens, which the liberality of the British Government has called into existence, you do not travel far after passing the beautiful entrance-gate, on Kew Green, before you find an exemplification of the art which has converted our northern climate into that of a tropical region; for on entering the Grecian conservatory you might imagine its inmates were revelling in all the conditions of their natural life. The principal specimens are comprised of New Holland plants, of which there are magnificent examples of *Banksia Solandra*, at least 30 feet high; also *B. Cunninghami*, *B. integrifolia*, and *B. compar*; *Melaleuca stypteloides*, and *Eucalyptus Priesiana*, whose pendulous, Willow-like branches contrast agreeably with the more rigid forms of the *Banksias* &c. There is also a good specimen of *Clothra arborea*, finely in bloom on the 18th of August, the date of my visit; it is a native of Madeira, with fine dark foliage somewhat like the Alder, and flowers resembling the *Deutzia*. Intermixed with these are some handsome tree and other Ferns, the most noticeable of which are *Cyathea medullaris*, *Dicksonia antarctica*, *Gleichenia flabellata*, *G. microphylla*, and *Pteris tremula*. The side shelves are occupied by some well-grown *Fuchsias* and other plants, *Datura cornigera flore pleno* being very conspicuous on account of its large, double, white, highly-odoriferous flowers.

Passing from house No. 1 along the main walk you soon reach what used, I believe, to be the orangery, but which has lately been used as an exotic fernery. It is, probably, destitute of many requirements necessary to a plant-structure, as it is now cleared of the Ferns, among which was the magnificent specimen of *Angiopteris evecta*, and which was, much to the regret of all, robbed of some of its best fronds in order to remove it to the Palm-stove. The building is seemingly to be appropriated as a museum for specimens of timber and curious examples of wood. Among those already placed here are some fine trunks of Palm, tree Ferns, *Dracenas*, &c. There is one singular example of the tenacity of some climbing plants to the object supporting them: this is the trunk of a Palm encircled by a Fig; the latter has twined, and united, and reunited its branches round the Palm in the most singular and fantastic manner. A good idea of it may be formed by encircling your walking stick with wire netting.

Turning from the main into one of the side walks you find house No. 3, which is an old lean-to occupied by various greenhouse plants, among which are good specimens of *Statice Holfordi*, *S. brassicifolia*, and *S. sinuata profusa*. There are also good plants of *Campanulas*, which, when well grown and flowered as these were, are invaluable for decorative purposes, especially such pyramidal varieties as *C. Vidali* and others of both the blue and white class.

No. 4 is a propagating-house, from which the public are excluded.

No. 5 in the immediate vicinity is a lean-to stove, occupied almost entirely by a remarkably fine collection of *Begonias*. Among the most striking are healthy specimens of *Adolpha Pollock*, *Decora*, *Edward Ortus*, *Hypargeria Lowii*, *Little Dorrit*, *Rollisson's grandis*, *Tam o'Shanter*, *Sam Weller*, and *Splendidissima argentea*, together with numerous hybrids of the greatest excellence. Intermixed with these are good plants of *Cyanophyllum magnificum*, *Russellia juncea*; and trained under the roof is a fine specimen of *Clerodendron splendens*. Placed upon the front shelf are some good *Orchids*, *Achimenes*, *Begonias*, and a variety of other plants.

No. 6 is known as the old aquarium, in which is grown in a slate tank a good specimen of the *Victoria regia*, which is in good health, and this season has bloomed well. The tank is built above the level of the floor, and the Lily has extended its leaves over the side, in consequence of which their edges are somewhat disfigured by visitors constantly rubbing them in their passage round the tank. The side shelves of the houses are occupied by a rich and well-grown collection of *Caladiums*, of which *Baraquinii*, *Belleymei*, *Chantini*, *Perrietti picturatum*, and *Wightii*, figure most conspicuously. At the end opposite the entrance is an extensive collection of *Nepenthes* or Pitcher-plants; these are fine large plants, but do not exhibit the very best health. There are also other plants remarkable for their fine foliage distributed about the house, which include a good specimen of the handsome *Calathea zebrina*, together with several fine *Marantas*, of which *Fasciata flavescens* and *Porteana* are conspicuous.

Having discovered No. 7 you find it occupied by a class of plants widely at variance with the usual forms of vegetation. There are persons now living who may remember the time when our greenhouses could exhibit but few examples of the curious genus *Cactæ*, except the creeping *Cereus*, the Melon and Torch Thistles, and Indian Fig; but such have been the enterprise and success of botanical collectors, and the facilities of impregnation and multiplication (or rather propagation), that to furnish a catalogue of the representatives of the family contained in this structure would be a downright absurdity. I may, however, venture to mention some few of the most strikingly curious—for instance, what can be more strikingly curious than the magnificent specimen of *Pilocereus senilis*? A casual observer

might take it to be a model of Eddystone lighthouse rather than a vegetable form. And again, what need be more singular than the various specimens of *Opuntia*? indeed there is a singularity attaching to the whole family of these curious plants, and perhaps nowhere in the world are these singularities brought together and tended as at Kew. The splendid specimens of *Agave*, *Cereus*, *Cacti*, *Euphorbias*, *Yuccas*, and a host of others, bespeak but too plainly that it is no ordinary care that produces them in the perfection in which they here revel; and it is not to the *Cacti* alone that the house owes its interest, for facing the entrance is placed a fine specimen of *Arundo conspicua*, or Water Reed, which has a strange contrast with its neighbours. Then such liliaceous plants as the *Agapanthus* are placed among the *Agaves*, *Yuccas*, &c.; while the arched rafters are decorated with such climbing plants as *Passiflora*, *Ipomæa*, *Dolichos*, &c. The best Passion-Flower here is *Impératrice Eugénie*. Another unnamed variety is remarkable for its large yellow fruit, which, independent of the bloom, is highly ornamental. Altogether this house possesses a very large share of interest.

No. 8 is a new brick structure, rendered highly ornamental by the use of coloured bricks in the construction of its walls. It is occupied by some magnificent specimens of tree Ferns.

No 9 is private. It is seemingly a nursery for a very extensive collection of Ferns, among which may be seen the various variegated forms.

No. 10 is a spacious greenhouse, which this year has undergone thorough repair; and is so far completed that one wing is filled with summer-blooming plants in the way of *Fuchsias*, *Colosias*, *Statice*, &c.

Nos. 11 and 12 combine a spacious span-roofed stove, containing another extensive collection of Ferns and other ornamental-foliaged plants, one that is especially remarkable being a splendid example of *Cyanophyllum magnificum*. Then trained to the pillars supporting the roof are plants of *Cissus discolor*, and other almost equally meritorious members of the same family.

Nos. 13 and 14 combine a large greenhouse occupied by an extensive collection of *Fuchsias*, ornamental-foliaged plants, some good specimens of *Campanula pyramidalis*, and a remarkably showy *Lobelia* of the tall scarlet kind called *Mars*, together with numbers too great to mention.

I here understood I had some dozen other houses, together with the Palm-house, the new aquarium, the museums, and a host of other attractions to see, and also understood that the houses closed at six o'clock: therefore, leaving little time and little choice but to miss the majority in favour of the Palm-house and new aquarium.

Entering the Palm-house you are paralysed for awhile at the characteristic beauty of the tropical forest before you. In the centre of the building the specimens of *Caryota urens*, and *Cocos plumosa*, have quite reached the top of the lofty structure; a fine specimen of *Bambusa arundinacea* also touches the glass; and with these are a host of *Dions*, *Livingstonias*, *Musas*, *Seaforthias*, and *Sabals*; while the undergrowth consists of such plants as *Ficus*, *Coffeas*, some varieties of *Anana*, with *Dracenas*, tree Ferns, and numerous other flowering and ornamental-foliaged plants. One of which, by-the-by, I had almost overlooked from its being poked away by the circular stairs leading to the galleries—it is *Coleus Verschaffelti*, the specimens of which must surely exhibit the utmost capabilities of this truly handsome plant.

And now entering the aquarium, which the queen of Water Lilies claims as her own, you are gratified (if so fortunate as I was), to find her majesty decked in court robes this season. The Lily occupies the centre of the tank (which is level with the floor), and is in a remarkably good state of health, having bloomed abundantly; while the interest is enhanced by its being surrounded with *Nymphaea alba*, *N. rubra*, *N. cœrulea*, &c. Then at regular distances round the margin of the tank are placed specimens of the magnificent *Cissus discolor*. The pots in which the plants grow are slightly immersed in the water; while the plants mount in columns to the roof. Then connecting each column is a festoon of the same handsome plant, which can never be sufficiently appreciated unless seen in the magnificent profusion in which it is here displayed. In small tanks level with the floor, and occupying the corners of the house, are specimens of the sacred Bean *Nelumbium speciosum*, *Papyrus antiquorum*, and other less notable aquatics. Round the sides of the house are placed collections of fine-foliaged plants, including *Alocasia macrorrhiza variegata* (a large and beautiful plant, together with *Caladiums*, and *Musas*, of which violacea was finely in bloom, and the plants of glauca, zebrina, and discolor exhibiting the finest health. This house appears to be a general favourite and centre of attraction.

And now it is closing time. The aquarium, however, is kept open an hour later to give visitors an additional opportunity to see the *Victoria* bloom.

The visitor may still find abundant attraction out of doors. Wandering along the fine grass walk (or vista) leading to the pagoda, you fall upon the new conservatory or winter garden, which is fast approaching a state of completion. The roof is on, and the heating

apparatus on the ground, so that it may be expected to approach completion this autumn. When this is done Kew will not lack room for New Holland plants, or any others that require it.

The young Deodars on each side of the vista are looking remarkably well, and will, in a few years, form a grand feature in this part of the grounds.

The bedding plants along the main walk were evidently past their best on the 18th of August, yet the arrangements were superb. Of new plants used were *Coleus Verschaffelti* and *Gnaphalium lanatum*, this last being a useful addition to the dwarf class of edging plants. The beds of Purple Zelinda Dahlia, edged with *Calceolaria*, were truly magnificent from their abundant bloom, dwarf compact habit, and rich colouring. The flower garden in front of the Palm-stove was the *beau idéal* of beauty, the fine masses of *Perilla nankinensis*, *Calceolaria Aurea floribunda*, Tom Thumb Geranium, and Purple King Verbena, together with the variegated *Alyssum*, contributing to form a most enchanting whole.

It would fill a folio volume to particularise all the alluring attractions which Kew Gardens now present; but I may conclude by remarking that its value does not consist alone in its ornamental and recreative grandeur, but also in its being the most extensive field in Europe for the edification of the botanical student; while everything is being done for those actually employed in the establishment, including a fine library of botanical and horticultural works, weekly lectures, and willing information from the officials to all inquirers.

Algarikirk, Lincolnshire.

J. MCP.

ROYAL HORTICULTURAL SOCIETY, Oct. 8.

GREAT INTERNATIONAL SHOW OF FRUIT, VEGETABLES, CEREALS, AND GOURDS.

FROM "coast to coast in friendly chain" came representatives to this great Show. From "western continent and isle" to "eastern climes." From the "inhospitable regions of the north" to the "golden lands of the sunny south," in some proportion, came productions of the growing horticultural enterprise of the nations of the world. It was a marvellous show of fruit—great, chiefest of all in the excellence of its many subjects; but teaching this most unmistakeably—the pre-eminence of English over continental growth. Englishmen walked proudly along by the lines of fruit that covered the tables, and saw another indication of their country's supremacy. The enthusiasm of some could not be suppressed, and found vent in exclamations of gratification that the "old land" was so far in the van of fruit-production.

The large conservatory was devoted entirely to fruit, and some more was found in the eastern arcade, where also were staged much of the continental and antipodal contributions. Agricultural roots and cereals were in western arcade contiguous to the conservatory. The Gourds and vegetables found a lodgment in the arcade by the side of the machinery department of the Great Exhibition. Fine samples of cereals were ranged in the place indicated; most striking of all were cases of Mr. Hallet's Pedigree Nursery Wheat. Agricultural roots were staged in large quantities; Turnips, Mangolds, Carrots, Kohl Rabi, &c., were piled in successive banks, and terminated in a splendid group of agricultural produce furnished by Messrs. Sutton & Sons, Reading—a stand that of itself was an exhibition arranged with the same skill and taste that seem always to characterise the stands of this well-known seed establishment. Between this division and that of the vegetables were arranged the Gourds in all sizes, and shapes, and colours; but in the name of all that is useful, to what purpose can they be turned—what will compensate for all this outlay of cultivation? Is it only that they can be manufactured into good jam? some pots of which were in the group exhibited by Mr. Cattell, of Westerham, which possessed a most agreeable flavour, resembling that of the Apricot.

A huge circular mound of fruit was raised in the centre of the conservatory; the larger portion of it was from Mr. Lewis Solomon, Centre Row, Covent Garden, the remainder from Messrs. Webber & Co., of the same place. There were Pines, and Grapes, and gigantic Pears and Apples so high coloured, and so large, as to look like artificial models, to procure which the south of Europe had been explored. Of the former there were specimens of Duchesse d'Angoulême, Glou Moreau, Bon Chrétien d'Espagne, Easter Bourné, Calabasse, St. Germain, and fruit of immense size of Uvedale's St. Germain, shown under the name of Belle Angevine, by which it is known in France. Of Apples there were wonderfully-sized examples of Ribston Pippin and White Calville; also Reinette Blanche d'Espagne and Reinette du Canada. There were also Pomegranates, Cardoons, Tomatoes, Brazil Nuts, and Walnuts, all in keeping with their gigantic colleagues.

Five collections of Miscellaneous Fruit were staged by private growers. Mr. G. Tillyard, gardener to J. Kelk, Esq., Stanmore, was first, having beautiful bunches of Muscat and

Black Hamburgh Grapes; Brown Turkey and White Marseilles Figs; Golden Drop and Impératrice Plums; Currants, Raspberries, Morello Cherries; Moorpark Apricots; Chaumontel and Glou Morceau Pears; Cox's Pomona Apples; Melons, and Walburton Admirable Peach. Second, Mr. A. Henderson, Trentham Gardens, having Antigua and Montserrat Pine Apples, Trentham Hybrid Green-fleshed and White-fleshed Melons (very fine), White Tokay, Black Hamburgh, and Black Prince Grapes; Walburton Admirable Peaches, and Elruge Nectarines; Red and White Currants; fruit of *Eugenia Ugni*, Golden Drop and Diamond Plums, White Ischia and Brown Turkey Figs, Lord Suffield and White Calville Apples, and Louise Bonne and Williams' Bon Chrétien Pears. Third, Mr. W. Kaile, gardener to Earl Lovelace, Ripley, Surrey.

With Queen Pine Apples Mr. W. Green, gardener to Mrs. Honeywood, Kelvedon, was first, having a fine fruit weighing 6 lbs. 1 oz.; second, Mr. G. Young, gardener to W. H. Stone, Esq., Havant; and third, Mr. E. Robinson, gardener to R. Benyon, Esq., M.P., Reading. Mr. Thomas Ingram, Royal Gardens, Frogmore, was first with a smooth-leaved Cayenne, weighing 6 lbs. 7 ozs. Second, Mons. Chantrier, head gardener to the Duc de Levis Vantadour, Noisiel, near Paris, with a smooth Cayenne, weighing 7 lbs. 12 ozs. Third, Mr. H. Bwyne, gardener to R. T. Crawshaw, Esq., Merthyr Tydvil.

With six bunches of White Muscat Grapes, Mr. W. Hill, gardener to R. Sneyd, Esq., Keele Hall, who has the reputation of being the most successful Grape-grower in England, was first with fruit weighing 17½ lbs.; second, Mr. G. Tillyard; third, Mr. J. Meredith, Garston, Liverpool. The three bunches of White Muscats, Mr. Drummond, gardener to J. S. Smith, Esq., Tunbridge Wells, were marvellous fruit; for while the colour was all that could be desired, the size, form, and plumpness of the berries were faultless. Second, Mr. G. Tillyard; third, Mr. J. H. Potts, gardener to M. Phillips, Esq., Stratford-on-Avon. Mr. Sage, gardener to Earl Howe, Atherstone, had some splendid bunches of Trebbiano in the Class for any other White Grape, one bunch alone weighing 7½ lbs. Second, Mr. J. Ingram, gardener to J. J. Blandy, Esq., Reading, with fine examples of the same variety. Third, Mr. J. Meredith, Garston, Liverpool, with Nixon's Seedling. With six bunches of Black Hamburgh Grapes, Mr. A. Henderson was first with beautifully-coloured and fine fruit; and equal second were Messrs. Hill and Meredith with Mr. Ingram, of Reading, third. With three bunches, Mr. Drummond bore off the palm, having a variety known as Wilmot's, and distinguished for the size of its berries. Mr. A. Henderson was second, and Mr. J. Omant, gardener to J. Lurek, Esq., Epsom, third. The Class for any other Black Grape excepting Hamburgh was an extremely interesting one, from the variety and number of the subjects. Mr. Drummond was first with Black Barbarossa, being very like Black Hamburgs; second, Mr. J. Meredith, Garston, Liverpool, with Kempsey Alicante, a peculiar-looking Grape, the berries being large, long, and oval, and beautifully covered; third, Mr. W. Hill, gardener to R. Sneyd, Esq., with Lady Downe's Seedling. Kempsey Alicante was also shown by Mr. Cox, gardener to C. H. Reyds, Esq., Worcester. Mr. Bwyne had Black Prince, and Mr. Tillyard West's St. Peter's.

A very large quantity of Pears were produced. With twelve dishes of dessert kinds, Mr. Dwarrihouse, gardener to Viscount Eversley, Heckfield, was first with Brown Beurré, Beurré Diel, Flemish Beauty, Louis d'Orleans, Beurré Rance, Vicar of Winkfield, Easter Beurré, Gansel's Bergamot, Winter Nelis, Ne Plus Meuris, Beurré de Capiaumont, and Marie Louise. Second, Mr. A. Ingram, Frogmore Gardens, with Knight's Monarch, King-sessing, Duchesse d'Angoulême, Chancellor, Beurré Diel, Prince Albert, Beurré Rance, Van Mons Léon le Clerc, Chaumontel, Conseiller de la Cour, Beurré de Capiaumont, and a Californian variety. Equal third, Mr. J. Morris, gardener to T. White, Esq., Wethersfield; and Mr. T. Frost, gardener to E. L. Betts, Esq., Aylesford. With six dishes of dessert Pears, Mr. S. Snow, gardener to the Countess Cowper, Wrest Park, Beds., was first with splendid fruit of Marie Louise, Beurré d'Anjou, Maréchal de la Cour, Van Mons Léon le Clerc, Glou Morceau, and Beurré Diel. Second, Mr. J. Ford, Watton, Herts, with Marie Louise, Glou Morceau, Beurré Diel, Beurré Rance, Easter Beurré, and Duchesse d'Angoulême. Third, Mr. G. Tranter, gardener to the Hon. G. D. Ryder, Hemel Hempstead; and extra prizes to Mr. A. Bousie, gardener to Lord Taunton, Stoke, near Slough; and to Mr. J. Stroud, gardener to the Hon. Mrs. Finch, Great Berkhamstead. With three dishes of dessert Pears, Mr. A. Ingram, Frogmore Gardens, was first with Golden Russet and British Queen, two very pleasing-looking Pears, both having a smooth golden yellow skin; the last-named being the largest fruit; and it was stated by Mr. Powell that it possessed an exquisite flavour. The remaining dish was Gansel's Bergamot. Mr. Bousie had three dishes of fruit of a very high order of the following:—Marie Louise, Beurré Bosc, and Triomphe de Jodoigne, that were deservedly second, but they were disqualified by the Judges because of "incorrect nomenclature," the last-named being Urbaniste: hence the fatal objection. Mr. Bousie stated to us then, what he has since amplified in the *Gardener's Chronicle*, that he received the grafts of the fruit from the Horticultural Society under the name by which he exhibited it; and, further, seemed quite at a loss to discover why, if his

fruit was disqualified because of being wrongly named, Mr. Lumsden's fruit, who was placed second, was not also rendered ineligible to compete—two of his dishes containing *eight* fruits each, instead of *six*, as stated in the schedule. The question naturally arises, would the disqualification also have arisen if the fruit had been exhibited unnamed? Perhaps, if "incorrect" spelling was visited by disqualification, it would only be pushing to a legitimate issue the position of the Judges. *This* does want reforming, for at every exhibition of fruit orthographic errors are the rule instead of the exception. It will be seen that in Mr. Solomon's group of fruit, Uvedale's St. Germain's Pear was shown under a French name. Perhaps Mr. Bousie's cause of disqualification might have arisen from some continental synonyme having been affixed to his fruit. Mr. D. Lumsden, gardener to Lady Hamilton, Sleaford, was second with Marie Louise, Beurré Bosc, and Gansel's Bergamot; third, Mr. T. Frost, gardener to E. L. Betts, Esq., Aylesford. With a single dish, Mr. Ingram, Frogmore, was again first with British Queen; second, Mr. W. Bain, gardener to A. Perkins, Esq., Hounslow, with Seckel; and third, Mr. Culverwell, Thorp Perrow Gardens, Bedale, with Haeon's Incomparable. With a single dish of Kitchen Pears, Mr. S. Snow, Wrest Park, was first with Uvedale's St. Germain's; second, Mr. Wilmot, gardener to Mrs. Crompton, Roehampton, with Catillac; third, Mr. S. Ford, gardener to W. E. Hubbard, Esq., Horsham, with Uvedale's St. Germain's.

Apples were as fine as they were numerous. Mr. Bousie was first with twelve dishes of dessert Apples, having splendid fruit of Clark's and Cockle Pippins, Beauty of Wilts, Rosemary Russet, King and Ribston Pippins, Court-Pendu Plat, Formosa, Nonpareil, Gravenstein, Benwell's Pearmain, Devonshire Quarrenden, and Cox's Orange Pippin. Second, Mr. J. D. Whiting, gardener to H. T. Hope, Esq., Dorking, with Franklin's Golden Pippin, Adams' Pearmain, King of the Pippins, Ashmead's Kernel, Sweeney Nonpareil, Blenheim Pippin, Herefordshire Pearmain, Ribston and Eldon Pippins, Braddick's Nonpareil, Court-Pendu Plat, and Mickleham Pearmain. Third, Mr. T. Frost, Extra, Mr. A. Ingram. With six dishes, Mr. W. Hall, gardener to Captain Tyrrell, Ealing, was first, with Fearn Pippin, Braddick's Nonpareil, King of Pippins, Ribston Pippin, Court-Pendu Plat, and Blenheim Orange. Second, Mr. G. Lane, St. Mary's Cray, with Forge Seedling, Kerry Pippin, Ruck's Nonsuch, Bull's New Golden Reinette, King of Pippins, and Cornish Gilliflower. Third, Mr. A. Simpson, gardener to Lady Molyneux, Stoke Farm. Extra, Mr. J. Wilmot. With three dishes of ripe fruit, Mr. J. Wright, gardener to Mrs. Ramsden, Twickenham, was first, with beautiful fruit of Golden Russet, King of Pippins, and Duchess of Clarence. Second, Mr. Newton, gardener to G. J. Graham, Esq., Enfield Chase, with Margil, Ribston Pippin, and Scarlet Nonpareil. Third, Mr. J. Widdowson, gardener to C. A. Barnes, Esq., Rickmansworth, with Ribston, King of Pippins, and Golden Reinette. Extra, Mr. A. Simpson, with one dish of ripe fruit. Mr. G. Grover, Hammersmith, was first with splendid specimens of Kirke's Incomparable. Second, Mr. W. Salmon, West Ham Abbey, with Cornish Gilliflower. Third, Mr. J. Barnett, gardener to R. Botfield, Esq., M.P., Shiffnal, with Golden Reinette. Extra, Mr. J. Ford, having King of Pippins. With six dishes of kitchen Apples, Mr. S. Snow was first, with remarkably fine examples of Bull's Golden Reinette, Wellington, Blenheim Pippin, Reinette du Canada, Gloria Mundi, and Alfriston. Second, Mr. A. Mcflatt, gardener to Viscount Maynard, Dunmow, with Wellington, Blenheim Orange, Old Hawthornden, Reinette du Canada, Wilson's Defiance, and Magnum Bonum. Third, Mr. D. Ayres, Ranelagh House, Fulham, with the larger collection of twelve dishes, a class that contained remarkably fine fruit, "without spot or blemish." Mr. J. Butterfield, Basingbourne, was first, having Cat's Head, Blenheim Orange, Normanton Wonder, Nelson's Codlin, Emperor Alexander, Kentish Brading, King's Pippin, Norfolk Beaufin, Waltham Abbey Seedling, Bedfordshire Foundling, Royal Russet, and Golden Noble. Second, Mr. Cox, gardener to W. Wells, Esq., Redleaf, with Waltham Abbey Seedling, Yorkshire Greening, Wellington, Celini, Dutch Codlin, Emperor Alexander, Poor Man's Profit, Gloria Mundi, Royal Russet, Claude, Norfolk Beaufin, and Blenheim Orange. Third, Mr. A. Moffatt, Dunmow. With three dishes, Mr. Snow again led the way, having equally fine fruit of Alfriston, Gloria Mundi, and Golden Noble. Second, Mr. G. Scrymger, gardener to R. Palmer, Esq., Reading, with Yorkshire Greening, Emperor Alexander, and Blenheim Orange. Third, Mr. D. Ayres, Fulham. With a single dish, Mr. Snow was first, having Alfriston; and with the heaviest five kitchen Apples, the same good fortune attended him, having a dish of Alfriston weighing $5\frac{1}{2}$ lbs. With a single dish, Mr. Culverwell, Bedale, was second to Mr. Snow, having fine specimens of King. Mr. W. Green, Kelvedon, had the second best dish of heavy Apples, the variety being American Pippin.

A dish of Oranges came from Mr. H. Baker, gardener to J. Harrison, Esq., Leicester.

Melons were shown by several growers, of the usual kinds seen on the exhibition tables. Mr. Tillyard, of Stanmore, was first, and Mr. Bousie was second, with a single dish of Plums, the variety in each case being Coe's Golden Drop. Some fine Raby Castle Currants came from Mr. G. Terry, gardener to L. Ames, Esq., St. Albans; and some Strawberries were also produced; but, as might have been expected, they were very small. Mr. Parsons, of

Danesbury, Welwyn, had a few Raspberries; and several extra prizes were awarded to Grapes, Pine Apples, Vanilla fruit, Nuts, &c.

A continuation of the Report shall be given in the December Number, that shall embrace the vegetables, and seedling flowers, and new plants that were brought before the Floral Committee.

Quo.

EFFECT OF CLIMATE UPON TREES.

It may be interesting, and perhaps useful, to the young gardener, to learn the effect of climate upon trees, especially such species or varieties which, though perfectly hardy in England, yet for want of a hot, dry climate like ours, fail to ripen their wood or flower freely. The using over-too-rich a soil, or any cause that will give over-luxuriant or late growth should, in a climate such as England, be avoided, as the great object of the gardener should be to obtain an early moderate growth, having the wood well matured during the latter part of the summer and fall. It will be observed, from the few examples I give, that Chinese and Japanese trees succeed well with us, much better than in England, from the similarity of our climates, both having hot burning summers and intense cold winters.

Acacia julibrissin.—My first acquaintance with this plant was trained against walls in the gardens of England, where its beautiful foliage had at all times made it a favourite. It was there a slow, delicate grower. Shortly after my arrival in this city some years since, on a hot July day, in company with an excellent botanist, I was passing a public square in this city, and, observing in a garden a beautiful tree covered with bloom, I stood to admire it. "What can it be?" I exclaimed to my friend. "Surely it is not *Acacia julibrissin*!" "Yes," my friend remarked, "that is the tree!" It was about 20 feet high, a lovely object I remarked, its growth being slow in England. As the wood scarcely ever matures, all the growth is nearly killed back in winter. Two-year seedlings in the quarters of my nursery have made a growth 3 feet long, and ripened to the point—all the effect of a hot burning sun.

Hibiscus syriacus.—This shrub is found in every part of the States, north and south, and everywhere beautiful—in this latitude blooming in great beauty in July. Like the preceding, it ripens its wood to the point almost as hard as oak; hence its profuse flowering.

Araucaria imbricata.—Many correspondents to the horticultural press in England have recounted the deaths of this noble tree during a late winter. Some ten or eleven years since many specimens were planted in the parks and squares in this city. For a few years they continued to grow well, until, like you, we got an unusually severe winter (10° below zero), which destroyed all but one. This solitary specimen is growing vigorously, and is very fine.

Bignonia grandiflora.—Very frequently this is classed in England as a greenhouse climber. Only have its wood well matured, and it will withstand any amount of cold. I have known it stand out in the State of New York, without the slightest protection, where the thermometer was 20° below zero. Plant against a hot wall, in a thin poor soil, and success is certain.

Catalpa syriacifolia.—I once saw this tree bloom in England. That was at Tredegar Park, near Newport, Monmouthshire. The trees on this occasion were old, stunted, and could mature their little growth. This native tree is of very rapid growth. I have had young plants in the nursery make a season's growth from 5 to 6 feet in length and ripen to the point. Here it blooms about midsummer in great profusion, and is a lovely object. It attains quite a large size, but commences blooming when young. It is a very ornamental and beautiful tree.

Paulownia imperialis.—What a gorgeous object is this in bloom! I know of no large tree to compare with it. It grows luxuriantly in our hot sun, and in a very few years is a good-sized tree. As the wood is properly matured, it gives bloom when young and freely. The beauty of a tree loaded with myriads of its beautiful blue flowers may be easily imagined.

Kölczeeria paniculata.—A writer in the *Gardener's Chronicle*, a short time since, noticed the growth of this tree in Paris. At this I am not surprised, as any lover of trees or shrubs must be struck with it in bloom, its long panicles of golden yellow blooms having a superb effect. With us it is liberally planted in our gardens and public parks, where, from its distinct character and freedom of flowering, it is greatly admired. Like the preceding, well matures its wood.

Forsythia viridissima and *suspensa*.—These are beautiful objects in this climate, as much at home as any of our native shrubs. I have known them endure 20° below zero, and not a flower-bud injured. Their growth is rapid, especially the latter, maturing their wood well. They are among our earliest blooming shrubs in spring, and lovely objects in a garden, being one sheet of golden yellow bloom.

Spiraea Reevesii.—Frequently I have known this plant disappoint cultivators in England by not blooming, and this for want of having the wood matured. Here, where this want of ripening does not exist, both varieties (single and double) are perfect sheets of bloom in spring. *Prunifolia flore pleno* very frequently shows green in its bloom in England, a thing which never occurs out-doors in this climate, where its blooms are of snowy whiteness, and with which the plants are loaded. In our forcing-houses during winter, the defect in the flowers, by becoming partly green, is of frequent occurrence.

Cryptomeria japonica.—When this beautiful conifer is not over-luxuriant in growth and matures its wood, it will endure 10° below zero. Young plants in a good soil very frequently grow with great rapidity and late, in which case the leaders are frequently killed back; but where these are protected for the first few years until the plant attains size, the growth is less vigorous and well matured. It is among our hardiest and finest evergreens.

Euonymus japonicus.—I have seen this plant injured more by 10° below freezing in England than I have by as many below zero in this country—such is the effect of having wood well matured. With a slight protection out-doors, I have known them pass with little injury through 20° below zero.

Magnolia grandiflora.—The prince of our native evergreens is, indeed, a superb tree. In this latitude, when young and growing vigorously, its young wood needs a little protection; but once it attains size, 10° below zero will not injure it. Why, then, treat it so tenderly as it frequently is in England? It is not protection from cold which it requires, but to be planted in a dry, warm situation, where it will mature its growth perfectly and early. With us it gives its magnificent blooms early in July.

The foregoing list I could extend; but enough is given to show the effects of a hot, dry climate. The thinking gardener will know how to apply the facts given, not only to those trees and shrubs, but to others from kindred climates.

Washington City, D.C., U.S.A.

JOHN SAUL, Nurseryman and Seedsman.

JUDGING DAHLIAS AT KENSINGTON, SEPT. 10TH.

In your last Number of the *FLORIST AND POMOLOGIST*, the statement made respecting what took place in judging the Dahlias in the Nurserymen's Classes, is by no means correct. In Class 16, forty-eight blooms, the Judges had no difficulty, and no two gentlemen were called in. In Class 17, twenty-four blooms, one of the Judges contended strongly for placing the two stands upon an equality. Two gentlemen were called in, and Mr. Turner was placed first.

W. DODDS, one of the Judges on that occasion.

REVIEWS.

The Young Gardener's Educator. By William Keane, *The Old Horticultural Gardens, Edwards' Place, Kensington*. London: Groombridge & Sons.

In the present volume, Mr. Keane presents to his readers a series of lessons, written in a popular and conversational style, on the various subjects which are now considered useful auxiliaries, if not really requisite, as part of a gardener's education, comprising English grammar, geology, botany, vegetable physiology, horticultural chemistry, physical geography, entomology, and measuring, architectural drawing, letter-writing, penmanship, &c. It is most commendable in any one endeavouring to bring even an outline of the above branches of practical and scientific knowledge under the notice of young gardeners; which subjects, generally speaking, are explained and elucidated in a clear and satisfactory manner, and cannot fail to be of use to the class for which the author intends it, and to whom we can recommend the work as containing very much that will improve and instruct them.

Hints on the Construction and Management of Orchard-houses. By J. R. Pearson, *The Nurseries, Chiswell, near Nottingham*. Second Edition. London: Journal of Horticulture and Cottage Gardener Office. 1862.

This unpretending little work possesses the great merit of brevity, and combines a clearness of describing practical information we have rarely seen equalled. The author's complete knowledge of his subject appears in every line he has written, both on the construction of orchard-houses and the cultivation of their inmates; and there is more sound philosophy in the forty-three pages which comprise this little volume than in many works ten times the size. Send eighteen penny stamps at once to the office and procure the book for yourselves, is our advice to all who are interested in orchard-house building or cultivation. And we can confidently remind readers of all classes, that if they will only follow the author in his practice, equal success will attend their labours.

CALENDAR OF OPERATIONS.

CONSERVATORY.

GIVE air freely when the state of the weather permits, but be careful to guard against cold cutting winds. Avoid using any more fire heat at present than is absolutely necessary to keep out frost. Water carefully. Camellias that are swelling their buds will require attention. Chrysanthemums will now be in full flower; and, if they are nice plants and are tastefully arranged, they will give this house a gay appearance for several weeks. Pick-off all dead leaves and decaying flowers, and keep the foliage of all plants as clean as possible, either by occasionally syringing or by washing.

GREENHOUSE.

All the plants should ere this be housed, arranged, and in proper order for the coming winter. Take advantage of bad weather to tie and train any plants that may require it, and to clean plants that are filthy. Ventilate freely in dry weather, avoiding cold draughts. Water carefully, especially in dull weather, as but little will be wanted unless for plants that are swelling their flower-buds. Keep the night temperature from 40° to 45°, and use no more fire heat than is absolutely necessary. Fumigate for green fly, and keep everything neat and clean.

STOVE.

Tie-up Poinsettias, Euphorbias, Juscias, Begonias, and other winter-flowering plants that they may look as neat as possible. When well done they give a cheerful appearance to this house during the winter. Keep all plants clean, and attend well to their wants. See plants that are at rest are safe. Give air freely in fine weather, and always in the forenoon, closing up early in the afternoon. Fire heat will now be necessary, as the night temperature should be kept about 60°.

FLOWER GARDEN.

Clear away all dead flower-stems, and clear and dig over the beds and borders. Plant the beds with dwarf evergreens, with bulbs and with spring-flowering plants. Protect tender Roses, bulbs, and everything that requires it. Clean and roll walks. Plant edgings, and push forward all groundwork whilst the weather continues favourable. Attend carefully to the stock of "bedding plants;" those in pits and frames must have all the air possible, and should be kept as dry as they safely can be. Cover up well at nights to make safe against frost. *Pleasure Grounds.*—Push forward alterations and planting with all the despatch possible. It will now require daily labour and attention to keep the walks and lawns clear of the falling leaves.

FORCING.

FRUIT.—*Pine Apples.*—Attend to the wants of fruit now swelling. Water when necessary. Keep a moist atmosphere, and see they have a proper steady bottom heat. Maintain a night temperature of 70°, and a day one of 80° to 85°. Plants for starting early next year must now be at rest. Keep the atmosphere tolerably dry and give plenty of air, and be careful the night temperature is never below 60°. The succession plants will demand considerable attention now. All active growth of the plants should now cease. They should have plenty of air and a dry atmosphere, with a night temperature of about 60°. They must have a steady bottom heat of about 85°: this is indispensable to success. The temperature by day need not exceed 70°, unless by sun heat. If the soil be tolerably moist they will not require any water at present. *Vines.*—The early house started last month will now require some attention. If the wood was well ripened, and the roots are all right, there will be no difficulty in getting them to break freely and regularly. Maintain a moist atmosphere, and a night temperature of about 50° until they break; it should then be raised to 55°. The day temperature should be 10° or 12° above the night temperature. Water well the inside borders. See there is a nice heat in the outside borders. Attend to the fermenting materials used for this purpose.

Towards the end of the month start a second house for succession; begin as with the early house with a low temperature and moist atmosphere. Water inside borders and cover the outside ones with fermenting materials. *Late Grapes.*—Keep as cool and dry as possible. When fire heat is necessary, use it during the day when plenty of air can be given. Guard against an arid atmosphere, as this would cause them to shrivel. *Peaches and Nectarines.*—Take advantage of bad weather to dress the trees in the early house with a mixture of soft soap, sulphur, clay, lime, and tobacco water, made with water to the consistency of paint. Tie all the shoots neatly to the trellis. Have the houses thoroughly cleansed, and see the heating apparatus is in proper order. Give all the air possible in open weather. *Figs.*—These should also be dressed with the mixture recommended above for Peaches, and the shoots should be tied-in in bad weather. Give an abundance of air, but on no account let the wood get frozen. *Cherries.*—The plants for early forcing should be got under cover before severe weather sets in. They should have all the air possible. *Strawberries.*—These will now have done growing, and should at once be placed in their winter quarters. Put some in a cold pit, vinery, or Peach-house for the first batch of forcing plants. The principal point to be attended to in wintering the plants is to keep the crowns and roots safe from all injury from frost. Ridging is an excellent plan, and for a large quantity is, perhaps, the easiest way of wintering them, as the roots are perfectly safe if the ridges are made sufficiently wide and are well thatched on the top, and in frosty weather the plants are easily protected. *Cucumbers.*—Plants for winter fruiting should be just now coming into bearing. Let the plants have all the light and air possible, and water carefully when necessary. But above all things pay the greatest attention to the bottom heat; if that be right there will be little difficulty in getting plenty of Cucumbers during the winter months. Keep the shoot stopped and tied down. Maintain a tolerably moist atmosphere. Keep the temperature by night about 70°, and during the day about 80° with an increase by sun heat.

HARDY FRUIT.

Frequently examine the fruit in the fruit-room. Plant fruit trees of all kinds in properly-made borders. It is nothing less than a waste of time and labour to plant in cold wet, undrained soils. See to the drainage of the borders in the first place, and then add whatever will improve it. Proceed with pruning when the leaves are off the trees; it is much better in every respect doing it now than leaving until the spring. Where summer pruning has been properly attended to there will not be much winter pruning. Any standard trees that have been neglected should be carefully gone over, and all the ill-placed branches should be removed. Keep the centres of the trees open. The majority of orchard trees in this country are ruined for want of proper pruning.

KITCHEN GARDEN.

Remove all old crops, and manure and dig or ridge-up all vacant ground. When the tops of Asparagus turn yellow, the whole should be cut and cleared away, and the beds cleaned of weeds, and then dressed with a good coating of rotten manure. *Artichokes* should now be dressed and carted-up. Earth-up Celery when dry and the plants have grown sufficiently. Tie-up Endive and Lettuces, and protect from frosts. *Cauliflowers*, protect. *Carrots*, *Parsnips*, *Beetroot*, *Salsify*, and *Scorzonera*, if not already done, take-up and store away in dry sand. *Peas and Beans*, make a sowing of Sangster's No. 1 Peas on a warm border, and of Early Mazagan Bean. Persevere in destroying weeds. It is rather difficult to keep anything like a neat appearance at this season, but every effort should be made to do so, by removing all dead or decayed vegetables, and constantly cleaning and sweeping. Plant Box-edging, roll walks, and push forward alterations whilst the weather continues favourable.—M.S.



Fancy Pansies.

1. *Princess Alice.* — 3. *M^{rs} Moore.*
 2. *Leopard.* — 4. *Double Purple.*

FANCY PANSIES.

WITH AN ILLUSTRATION.

No section of florists' flowers has had a more chequered career than the Fancy Pansy. We quite recollect two or three varieties being brought into notice some twelve or fourteen years since, when the acknowledged florists' varieties were so popular; but, being regarded as unwelcome intruders, they were speedily discarded.

We believe Mr. Downie, of Edinburgh, was one of the first raisers, and about twelve years since introduced Dandie Dimmot and one or two others. Mr. Salter also took them in hand; but, the kinds being generally small and unattractive, the flower did not make headway in popular opinion. The French florists, especially M. Mieliez, of Lille, afterwards followed in the same track, and succeeded in producing Miracle, Belle Esquermoise, Princesse Mathilde, and other kinds, which were first introduced into England by Messrs. E. G. Henderson & Son, and were placed in the hands of Mr. William Dean, of Shipley, in Yorkshire, for cultivation, the colder climate of the north during the summer being more suitable for the Pansy than that of London. In the hands of Mr. Dean the flower soon made rapid progress; and PRINCESS ALICE (*fig. 1*), Etoile du Nord, and other advanced kinds were introduced by him in the autumn of 1861. These have been followed by MRS. MOORE (*fig. 2*), one of the most perfect and beautiful kinds yet raised; LEOTARD (*fig. 3*), a very attractive sort; and several other kinds just introduced for the first time. For the samples of these which we have figured we have to thank our friend Mr. Dean, by whom they were raised.

The Fancy Pansy will, unquestionably, reach a high position in popular estimation, and most deservedly so; for whilst the florists' Pansy is restricted to three classes—selfs, white ground, and yellow ground, the Fancy Pansy is capable of unlimited extension in point of variety, and the colours are, in most of them, extremely rich and beautiful, whilst in form many of them are now equal or nearly so to the florists' kinds.

As border flowers, these comparatively new-fashioned Pansies are most valuable, as they grow more freely than a great number of the florists' kinds, and occupy more space. They revel in soil composed of turfy sod and leaf mould, and if the situation admits of shelter from the midday sun so much the better; but they, or, in fact, any Pansies, should not be under trees. The best method of propagating them is to pull off young rooted pieces in November, and plant them out in favourable situations; or, should the situation be wet and cold, they stand a better chance if kept in a cold frame, where they can have plenty of air, and be kept tolerably dry in winter. They can also be raised from seed, and a packet saved from good sorts will give a great variety. We, however, caution amateurs against purchasing foreign seed. We know of some not long since obtained from Erfurt, in the hope of its yielding something novel; but the whole produce was very much inferior to the Fancy Pansies now grown in England.

The DOUBLE PURPLE Pansy (*fig. 4*), is not new, and was known many years ago; but, like many other hardy plants of great beauty, it has been neglected because it did not happen to bask in the sunshine of popularity. It is, however, a charming border plant, and should be in every garden. Our sample for figuring was obtained from Messrs. Carter & Co., who, we understand, have been successful in becoming possessed of this long-lost and ornamental variety, which is likely now to be appreciated for its own merits, regardless of the stringent rules of the florists. -

The following are the best Fancy Pansies yet sent out. An excellent

descriptive catalogue of them, well worth consulting, has been recently issued by Mr. Dean :—

NEW VARIETIES.		
Adelina Patti	Le Géant	Mulatto
Creole	Leotard (see <i>fig. 3</i>)	Princess Louise
Gaiety	Maid of Honour	Prince Louis of Hesse
Harlequin	Mrs. Moore (see <i>fig. 2</i>)	Prince Napoléon
Impératrice Eugénie		
OLDER VARIETIES.		
Belle Esquermoise	Etoile du Nord	Neomi Demay
Belle Lilleoise	Léon d'Or	Prince's Alice (see <i>fig. 1</i>)
Couronne de Flore	Louise Miellez	Princesse Clotilde
Diamant	Masaniello	Princesse Mathilde
Distinction	Michael Ange	Prince Imperial
Donald Beaton	Miracle	Tiger
Duc de Brabant	Napoléon III.	

GOLDEN HAMBURGH GRAPE.

In your September Number "S. T." wishes some of your numerous correspondents to favour him with their experience of the Golden Hamburgh Grape. Having grown the above-named Grape for some years, both in hot and cold houses, I can now testify to its good qualities, which will, I feel sure, allow it to rank among the best White Grapes in cultivation. At the present moment it may be seen in perfection, both in berry and bunch, as grown by me at the nurseries of Messrs. Lane, of Berkhamstead, in their orchard-house amongst their collection of Black Grapes, the Golden Hamburgh being the only white Grape in the house.

W. TOOMER.

MONS. ROBERT'S PATENT FOR RENOVATING DISEASED ELMS.

A DISCUSSION has been going the round of the Press on the merits of M. Robert's plan for renovating old trees, which is stated to have restored the sickly Elms in the vicinity of Paris to a state of pristine luxuriance by stripping off their bark and leaving them to reproduce themselves with this important appendage, and with it returning health. We are told the plan answers admirably; so much so that M. Robert has taken out a patent for his discovery, which, after doing wonders in France, is recommended as a cure for the stricken Elms in the London Parks, and generally, when declining health shows itself in our English trees. We must admit that the French are ahead of us in knife-manipulations, whether the subject experimented upon be a biped, quadruped, or a member of the vegetable kingdom; but while admitting their general superiority, we are bound to take this question purely on its own merits as involving an important question in vegetable physiology.

It is now a good many years ago that William Forsyth, the Royal gardener at Kensington Palace, undertook a nearly similar office. Publishing by order of Government, "a particular method of cure," whereby "sundry cankered fruit trees in the Royal Gardens at Kensington" had been transformed into wonderful specimens of health and fecundity, by the application of a certain composition* described in the said publication, it was dedicated by a most

* The following is the composition referred to as given by Mr. Forsyth:—"Take one bushel of fresh cowdung, half a bushel of lime rubbish of old buildings, half a bushel of

eulogistic preface to his Royal Master. It further states, that the said William Forsyth did most successfully apply the same composition to divers Oak, Elm, and other trees suffering from disease and decay in the Royal pleasure grounds at Kensington, which were also restored to perfect health and soundness, as is testified to in a report signed by no less than eleven noblemen and gentlemen, who were directed to examine and report on the same to my Lords Commissioners of His Majesty's Treasury, and which said composition would, it was stated, save old England some hundreds of thousands of pounds by converting rotten old Oaks into sound timber.

The sequel to all this was a reward to William Forsyth, granted by Parliament to the amount, it is said, of £3000; about which we can only say that William Forsyth was an uncommon lucky fellow, that "his lines" had indeed "fallen in very pleasant places;" and that it was well he did not live in these degenerate times of parliamentary reform. But this, however, may be doubtful; for as sure as there is nothing new under the sun, so there will always be people ready enough to be gulled, particularly when the invention smacks of a scientific discovery. It appears to me that old William Forsyth's discovery after all was nothing like so dashing an exploit as completely stripping off the bark of a tree for the purpose of restoring it to health by M. Robert; and yet we are told this plan has been largely tried in France, and thus the Commissioners of Woods and Forests have given M. Robert permission to operate on some trees in England. We hope for the sake of our national credit as arborists, that these trees are neither very numerous nor very valuable, or we may be paying too dear for an experiment, which, if carried out in its entirety, would inevitably consign them to the sawpit. *Apropos* of new inventions, it is not long ago that we had brought before us the notice of a discovery made by a Frenchman to facilitate all the processes of vegetation by means of an artificial atmosphere in an extraordinary degree; and so far did his enthusiasm carry him, that he offered to conduct the experiments free of expense, excepting that we were to hermetically seal the house against the external atmosphere before he commenced his experiments—which was politely declined, although the offer was to obtain a crop of Grapes in three months instead of six.

But now as to this invention of M. Robert, which embraces the question of how far the bark of trees may be removed without injury. We may in the first place premise, that the attack of insects, which are supposed to cause the decay of the Elms near London and Paris, is entirely owing to a cessation of vigour, or of that particular condition of health which produces incipient decay; and this condition may exhibit itself in an altered state of the juices or sap of the trees before any external difference can be discovered. Plants, like animals, when in full health are not attacked, by reason that the peculiar food on which the insects feed is not then formed; but directly this change takes place, through the component parts of the sap becoming altered by a change in its chemical combination so as to fit it for insect food, then the foliage and bark of the plant are at once instinctively attacked by various classes of insects, which find a food ready formed to their liking, and which they never leave while the tree exists. The period during which a tree may live under these conditions depends on its powers of vitality and other causes to which we need not here advert, as it is merely a question of time; for generally speaking a cure can only be effected by completely restoring the health of such trees,

wood ashes, and a sixteenth part of a bushel of pit or river sand. The three last articles are to be sifted fine before they are mixed; then work them well together with a spade, and afterwards with a wooden beater until the stuff is very smooth—like fine plaster used for the ceiling of rooms."

and it is now our business to see whether M. Robert's plan will effect this result.

In respect to the office of the bark of trees, Dr. Lindley describes the bark to "consist of two distinct parts—the one external and cellular; and the other internal, resting upon the wood, and consisting of woody matter mixed with cellular. The external is the rind or cortical integument; the internal is the liber; when fluids leave the earth and pass into the stem in the shape of sap it ascends by the woody matter of the finest fibres of the roots, having left them it flows into the new wood with which those fibres are connected, and passes along this until it reaches the leaves. On its returning from them it descends through the liber or outer bark in front, in part passing off horizontally towards the centre through the medullary rays."

We see then that the bark, and alburnum, or sapwood, form the important medium of communication between the roots of trees, and their leaves; and serve in fact as channels, conducting the sap upwards from the roots through the alburnum or sapwood to their leaves, where, after its exposure to the influence of solar light and consequent change, it again descends principally through the inner vessels of the liber or inner bark, but distributing itself by means of horizontal cells throughout the whole system of the branches and trunk.

It will, therefore, be obvious that to remove this bark entirely, the channel of communication whereby the carbonised sap is distributed through the system of the tree will be cut off, and its peculiar functions as a medium for transmitting the downward sap suspended until other channels can be formed; but as it is difficult to separate completely the outer from the inner bark, it will frequently happen that when, to all appearance, the outer bark has been removed, there will yet remain what may be termed intermediate cells, capable of conveying either the ascending or descending sap; and which, on the removal of the outer bark, are doubtless converted to the office for which there exists the greater necessity, which in this case would be in conveying the sap downwards. But new bark has also been formed alone by the action of the horizontal cells, which, in Exogens, communicate between the centre of trees and the bark, as we have proved by direct experiment; but the process is an extremely slow one, and is named merely to show the efforts nature will make to recover what has been lost. But in our opinion, neither the total nor partial removal of the bark will effect a cure, and each tree so operated upon must suffer in proportion as decortication has been more or less practised, and we have the cause of all this still to deal with, for the cause of disease is deeper seated. The attack of insects is owing to the effect of, and is, in no way the primary cause of decay, which undoubtedly arises from various causes, among which may be mentioned an undrained soil whereby the roots are kept too wet and cold; or they may suffer from the opposite cause—*i.e.*, when, owing to an impervious surface, the natural rains which fall are carried away and do not pass through the earth to supply the roots with moisture. Or a contaminated atmosphere may exercise its baneful influence on the foliage, and so induce decay. Want of proper nourishment or food in the soil is another cause; and last, but not least, the insidious attack of fungoid vegetation seizing on the roots of trees rendered inactive by a "cachexy" state of system, owing to one or other of the above causes, just in the same manner as the Scolytus attacks the trunk and branches under the same conditions.

Drain your soil if water stagnates round their roots, or loosen the surface so as to admit it to pass through where it remains in pools over their roots for some time after rain. So that the roots may get the benefit of all the rain which falls on the surface, which is frequently not the case in promenades, boulevards,

and other places. Remove sour uncongenial soil from about their roots, when this may be suspected as unfavourable. To be brief, pure air, pure water, and pure soil are the requisite remedies. Apply these and you will give trees the vigour to enable them to resist the attacks of insects without having recourse to the dangerous plan of decortication.

PHI.

SMOOTH CAYENNE PINE.

HAVING read with considerable interest the correspondence between "M. S." and Mr. D. Thomson about the Smooth Cayenne Pine Apple, and having grown two varieties of the Smooth Cayenne, I am convinced both are right in giving a true description of the variety they each cultivate. Several years ago, wishing to get a stock of this Pine, I procured two lots from different growers; one of the lots produces a large well-flavoured fruit, but having a tendency to decay soon, frequently the pips at the base decaying before those near the crown are ripe, and occasionally getting rotten in the heart; indeed, just answering to the description "M. S." gives of the variety he cultivates. The other lot have turned out quite a distinct sort from the above; they produce large, highly-flavoured, long-keeping fruit. This sort I believe to be the true Smooth Cayenne. As one instance of its keeping qualities, we cut several fruit in March this spring, kept them eleven days, and then gave them a sea voyage to London. The answer received from my employer was, The Pines were good and arrived in fine condition. I consider it a matter of some importance that no wrong impression should go abroad as to the many excellent qualities possessed by the true Smooth Cayenne.

I had the pleasure a few days ago of looking over the collection at Archerfield, and saw a great number of extremely well-grown Smooth Cayennes, the fruit in various stages of growth, giving promise of a good supply of excellent fruit for the winter of this fine Pine. I had pointed out to me two good fruit of the same kind standing in a cool house that had been ripe for five weeks, and, to all appearance, would stand as long, if required.

Fordell, Fife.

ROBERT FOULIS.

THE GOOSEBERRY CATERPILLAR.

THE Gooseberry caterpillar I kept at defiance this year. I first discovered their ravages on the 9th of May by observing a few leaves riddled like little pin holes. I took out my pocket lens and examined many leaves, when I found them covered underneath, on the main veins, with the eggs and young larvæ just hatched, and they had made these little holes. On some leaves might be counted from twelve to forty or even fifty eggs or young larvæ. Well, then, after this I never passed either Gooseberry or Currant bush but what my eye was upon it. Yes, and underneath it, and all round it too, sometimes for a few minutes and sometimes for an hour or two, just as my time was required. I soon discovered that one stitch in time saved nine, by picking off these early riddled leaves whilst they were altogether before they grew strong and had spread over the bush to many leaves. I, also, soon found it was of no use to set other persons to look after these marauders. I tried to make my own son do this for me; but, "No," he said, "it was a nasty job, and to like it he

didn't." I set my man at it, but I soon found he took no interest in it. If a caterpillar stared him in the face he might pick it off and tread upon it, but was afraid he should soil his fingers. Well, then, as I said before, I kept an eye upon the trees myself and trusted to no one. I showed all particulars of these creatures to my very kind master, the Warden, who took a lively interest in the matter. All along afterwards he was often to be seen spending a few minutes round a bush. I showed him the insect from the egg to the perfect fly. What with the minutes and hours altogether, I might have spent from three to four whole long days in hand-picking and killing these insects; but if you had come into our garden this autumn you would not have believed that we had had a caterpillar by any chance this season.

Winchester College.

THOS. WEAVER.

THE CHOROZEMA.

THIS genus contains some of the most useful plants for decorative purposes, and also some of the most effective for exhibition; and when seen in the form of well-managed, healthy, vigorous specimens, are, probably, more generally admired than most of our greenhouse hardwooded subjects. But unfortunately, although the plants have long been common in collections, it is but seldom that we see a thoroughly good specimen of any of the varieties, especially of the slender-growing kinds. The plants, however, remain longer in beauty than most hardwooded greenhouse things do; and a specimen of any of the varieties, if in vigorous health, will last a month or five weeks in full beauty: hence they will repay the trouble necessary to grow them properly.

The culture of this genus is not difficult; but the plants are, unfortunately, very subject to the attacks either of red spider or mildew at all seasons of the year, and especially during the period of active growth, and require constant watching and attention to prevent their being injured by these pests. And if either red spider or mildew once gets fairly established upon a plant, they are so difficult to eradicate that only experienced growers are likely to be at the trouble, &c., which is necessary to effectually clean a plant which has once been severely attacked. It is useless, however, to think of having well-furnished healthy specimens unless they are kept perfectly clear of these pests: therefore the plants should be frequently and carefully examined, and if any trace of red spider is observed, or if the leaves have a rusty appearance on the under sides, the plants should be laid down on a clean mat, or some convenient situation, and the under side of the leaves well washed with the syringe or a small garden engine, applying the water with as much force as can be done without injuring the foliage, &c. And this process must be repeated at short intervals until the plants are perfectly clean; and even then they must be closely examined every week during the summer season, and occasionally at other times. The beautiful *Henchmani*, which is now so seldom seen, is particularly subject to be attacked by mildew, and it must be closely watched and liberally dusted with sulphur on the first appearance of the enemy; and, in the case of the other varieties, I apply a slight dusting of sulphur to the under sides of the leaves occasionally, which, if it does not prevent red spider, may help to do so, and keep the plants free from mildew. I have given this prominence to these remarks, because I have found red spider and mildew to be the cause of most of the failures I have either experienced or observed in the culture of this genus; and if the plants are kept free from these pests they will generally grow with surprising vigour, with only the most ordinary attention in other respects.

Another important point is the selection of promising young plants, for if plants which have been kept in small pots until their roots are much pot-bound and covered with small lumps are used, it will be very difficult to get these to make free vigorous growth: therefore such plants as are well established without being pot-bound, and with nice, clean, healthy-looking foliage and strong short-jointed shoots, should be chosen. Persons intending to commence the culture of any of the varieties should procure their plants as soon as convenient, and winter them near the glass in a cool house or pit.

Towards the beginning of March will be early enough to try to start the plants into free growth; then examine their roots, and if the ball is moderately covered with healthy active roots, repot into pots 2 or 3 inches wider than those in which they have been wintered. Then place them near the glass where they will be free from draughts, and where a temperature of from 45° to 55° is maintained by day and 40° to 45° at night. Syringe them gently overhead on the afternoons of bright days, and sprinkle the paths, &c., as may be necessary to secure a moist state of the atmosphere. After repotting spread out the shoots nicely, bringing the stronger ones down towards the pot as much as can be done with safety, so as to secure, as far as possible, the strongest growths to form the lower part of the plant; and as the plants progress in growth attend frequently to stopping any over-luxuriant shoots, and keeping the wood nicely distributed so as to make the plants grow into the desired form. As the weather becomes warmer and the plants begin to grow freely, the temperature may be allowed to range 10° higher, but a little air should be admitted at night when this can be done without the temperature falling below 45° , and air should be given freely when the day temperature rises above 55° , always taking care, however, not to allow drying currents to pass over the plants; and when the sun becomes powerful a thin shade during the middle of the day, or from ten o'clock to four, should be used, and then the plants will be benefited by being dewed over two or three times a-day with the syringe. If all goes well a second shift will probably be necessary early in July, and this should be given as soon as it may be required, so that the plants may get well established in their pots early in autumn. The plants should have got fairly rooted into the fresh soil by the middle of August, and should then be removed to the greenhouse or gradually exposed to a freer circulation of air for about a fortnight, when they should be placed in a sheltered shady situation out of doors, where they should remain as long as the weather is favourable. While they are out of doors care must be used to prevent the balls getting saturated by heavy rains, and they should be placed in their winter quarters before there is any danger of their being injured by cold stormy weather or frost. The best situation for them during the winter is near the glass in an ordinary greenhouse. The plants should receive similar treatment the second season to that recommended for the first, when those that have done well will be nice-sized specimens and suitable for conservatory decoration or for exhibition work, save where monster specimens are required. The weaker-growing varieties, even after it may not be desirable to increase the size of the specimens, will require rather close treatment after cutting-back until they make a moderate growth; but the stronger-growing kinds, as *varium nana*, *Lawrenceana*, &c., when only wanted to make sufficient growth to bloom upon, may be placed in a sheltered shady situation out of doors as soon after having been cut-back as they have fairly started into growth; but while here they must be protected from heavy rains.

The soil which I have found the most suitable for these is two parts of good, dark, hard, fibrous peat, and one part rich, brown, fibrous peat. These

should be carefully broken-up by the hand, removing the coarse roots and also the ling or grass, &c., from the surface of the sods, but not sifted or broken-up very fine. Where a supply of brown grassy peat is not at command, one-third of light sandy loam, as full of fibre as it can be obtained, may be used for the stronger growers, and a small admixture of the same for the slender-growing kinds. The compost should be well intermixed with a liberal quantity of silver sand, and it and also the ball of the plant to be repotted should be in a properly moist state at the time the operation is performed, and a plant should not be repotted unless the ball and the soil to be used are in a properly moist state. The pots must be carefully drained by covering the bottom with nicely-placed crocks, and these with a thin layer of the turfy portion of the peat. Then press the soil under the ball so as to make it firm, and pack the fresh soil firmly around the ball, leaving as much space on the surface as will hold sufficient water to fairly moisten the ball.

Watering is a very important part of the management of this genus, and unless this is properly managed the plants will not thrive, and it is one of those things which can hardly be learned save from practice. If beginners, however, will be careful to examine their plants frequently, and, when the plant seems to be dry, will give enough water to fairly soak the ball and not give any more until, from the hollow ring of the pot and the state of the surface soil, they feel satisfied that the ball is dry, they will soon get to understand when water should be given. During the winter the plants will be in a comparatively dormant state, and should be watered rather sparingly—that is, the pots should be allowed to ring clearer and the surface soil to feel drier before water is given than during the summer, or when the plants are in a more active state; but when a plant is watered, sufficient should be given to moisten the ball throughout; and the stronger-growing kinds should be watered rather more freely, especially during the growing season, than the slender growers. Water must also be very carefully given for some time after repotting, for there is more danger of over or under watering then than in the case of plants which are established in their pots; and for a fortnight after repotting the plants should be kept rather close and syringed more frequently, &c., which will assist in preventing errors in watering at this critical period.

ALPHA.

VIOLETTE HATIVE PEACH.

WITH AN ILLUSTRATION.

SYNONYMES.—*English Galande*; *Hardy Galande*.

THIS fine old variety ripens very nearly at the same time as the *Grosse Mignonne*, and, though found in some old collections, is far from being generally known. It is not so high-coloured as the *Bellegarde* or *French Galande*, which our French neighbours call *Noire de Montreuil*, nor is it quite so large. It is evidently of the same race, as its flowers are small and its glands round. It is remarkably distinct in one respect; for whereas the *Bellegarde* will not grow when budded on the *Muscle Plum* stock, this succeeds perfectly on it. No Peach is more melting and delicious, its flavour being very rich yet slightly vinous. The tree is hardy and longlived in almost all soils. Flowers small. Glands round.

Our figure was taken from very fine fruit grown on a pot tree in the orchard-house of Mr. Rivers, of Sawbridgeworth.



Violette Hatve

DALKEITH PARK.

Most gardeners are familiar with at least the above name, and many with the place. On the 17th of September last, being in the neighbourhood and fully alive to the pending arbitration on "Early *versus* Late Grapes," we called to see progress. The main garden forms, as near as we could make out, a square, the south walls of each side being covered with forcing ranges, with a great many clustered behind the south-west range. We commenced our walk at the central range by first entering what we were told was the second vinery. This was pruned and ready for starting in two weeks. The next was full of young mixed Vines planted the first week of June. They had lost no time in the fifteen weeks, as they had got to the top of the house and crossed back and forward in all directions, canes short-jointed and strong. The next to this was the first house, some bunches ready for thinning all in bloom. It is a strange sensation for a person accustomed to forcing to go into a vinery in bloom at that early season. Frost, snow, covering-up, great forcing, and anxiety rush upon one's mind by that same smell of Vine-bloom. Mr. Thomson informed us the Vines began to break on the 1st of August, and they had not been syringed since starting. The bunches are a good size, regular all over the house, more than we should leave for a crop, the young wood strong and short-jointed, with fine large healthy leaves. The Vines have originally been planted outside; but, having been found rooting in the heating material first used, this has been left. No doubt a great deal of the success in colouring in the dark months proceeds from the ingenious method of giving air over the pipes, a full description of which is given in the work on "The Vine," lately published by Mr. Thomson, and also from the size of the house. The two following are larger and central houses in the range, being used as plant-houses; one filled with fine-foliaged plants, the other as a greenhouse, both gay. Peach-houses formed an equal to the vineries on the other side. The borders of these inside were neatly edged with Lycopod, which gives a neat appearance to houses when the fruit is gathered. Behind this garden range a considerable space is occupied by more vineries, Pine stoves and pits, Victoria, Orchid, Cucumber, Camellia, and forcing-plant-houses and pits, all full and in fine order. A Muscat-house with the Vines planted in the pit, a beautiful crop with fine amber-coloured bunches. Near to this a late house, 110 ft. long by 11 ft. wide, was quite a picture. The sorts were West's St. Peter's, Lady Downe's Seedling, Barbarossa, and Raisin de Calabre. Some of the bunches on the latter must have been from 5 to 6 lbs., and would make a fine show on the table; but here, as elsewhere, Lady Downe's is the favourite, and I have no doubt it will take the place of all our other varieties of late Grapes. A graft of a seedling from Barbarossa had a bunch of promising qualities. A great advantage in this house for late work, was its steep pitch.

Several other vineries in this part looked equally well. I cannot leave this Vine question without remarking the great number of seedlings coming on both here and at smaller places which promise plenty of work for the Fruit Committee, and we hope something good besides; and also that the success of getting Grapes at any season is established beyond cavil. Mr. Thomson two years ago covered the whole Peach and Apricot walls here with a lean-to. The result of this was apparent by the beautiful crop of fruit on the walls.

Although properly speaking there is no flower garden here, yet the extent of bedding is something beyond many of our large ones, and deserves a separate notice from the great care bestowed on the arrangement and good effect.

J. F.

GOLDEN HAMBURGH GRAPE.

If much writing with very opposite opinions, an occasional mixture of personal remarks—generally, I must allow, from the supporters of the variety—would exhaust a subject, I should not have a fresh idea connected with the above-mentioned Grape; but a few remarks from an unprejudiced observer may not be out of place before the subject is finally closed.

We have heard and read the *pro* and *con*. of the matter, so that it requires no additions. In the first place, how many times has this Grape been shown since sent out? It has been out long enough for there to be plenty of thoroughly-established Vines in full bearing, in at least all first-rate Grape-growing establishments; and if it is the first-rate variety represented to be, of course there will be whole houses of it in some very large places. When and how many times has it beaten other white Grapes at exhibitions, Muscats of course excluded? I will ask any practical Grape-grower if the above questions, answered satisfactorily, would not establish the reputation of a fruit more than any amount of praise from interested parties? I can only say I have seen many of the London fruit shows for several years and have seldom seen it at all, and more seldom still in a prominent place. I have also visited the principal Grape-growing places in this country and seldom see it at all, which, to say the

least, is very extraordinary. I this season visited Chiswick during my trip to the great Fruit Show; and, although Grapes generally were very good and many very fine, even after the quantity that must have been cut for various exhibitions, all the fruit of Golden Hamburgh was one miserable bunch half shanked. Probably there had been much finer fruit on the Vine, still I expected to find at least a bunch or two fit for table after such a flaming account of it from a correspondent in a contemporary on the 13th of September; but, although the other varieties were wonderful in quantity and generally excellent in quality, every bunch of this particular variety was cut, observe, in eight days after the appearance of the last-named article; it certainly did not give gardeners time to see for themselves. Surely they would keep a week after ripe, even in a cold house, for I am not acquainted with any variety that will not keep more than a month on the Vine at any season in any house. As regards planting Vines inside or grafting on Black Hamburgh, I do not recollect its being mentioned when sent out, and on my specially inquiring on the subject of the man in charge of the large conservatory at Chiswick, he told me they could not perceive any difference, which is confirmed by a Gloucestershire correspondent in the before-mentioned contemporary of the 4th October, who, to clinch the subject, after mentioning the first rate bunches he had himself grown, states that friends of his—both amateur and professional—had obtained first prizes at local shows; by which we must infer that the Gloucester people are as famed in fruit-growing as short-horn breeding, and, of course, in competition and judging, are superior to the London exhibitors, which, in my ignorance and incompetence, I had considered the test. I would suggest that Mr. Busby or those most interested in this Grape should offer a prize for, say, three bunches, and also three Vines in pots at either of the great London shows to be decided on, of any variety of White Grape not Muscats or Frontignans, as it would also give the exhibitors the chance of obtaining the Society's prize for any other sort of white Grape, excepting Muscats; and, if it should prove superior, it would at once silence any of the incompetents, and would probably bring from remote parts of the country some of the magnificent bunches and berries, as well as the four-pound bunches (which are not to be despised at a London show at any season, especially in May), which some short-sighted people, myself among the number, have only as yet seen on paper.

AN OBSERVER.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 143.)

ARALIA LEPTOPHYLLA.—Messrs. Veitch & Son: First-class Certificate, April 9.—A slender erect stove shrub, with elegant long-stalked leaves formed of about eight palmately-disposed, long, linear-lanceolate, stalked leaflets, and very graceful in character.

ASPLENIUM MYRIOPHYLLUM.—Messrs. Veitch & Son, and Mr. Bull, Chelsea: First-class Certificate, April 1.—A charming little Mexican Fern, distributed by M. Linden under the name of *A. flabellulatum*. The plants form spreading tufts of short-stalked fronds, 6 to 8 inches in length, lance-shaped, bipinnate or tripinnate, the pinnules quite small: the lower ones deeply divided into two or three obovate pinnules or lobes, the upper ones oblong or obovate, simple, all being of transparent texture, and having a cellular-looking surface as if void of cuticle. The rachis is dark-coloured, and its point prolonged beyond the upper pinna, and proliferous.

ASPLENIUM RACHIRHIZON.—Mr. Bull and Messrs. Veitch & Son: First-class Certificate, April 1.—A graceful Brazilian Fern, introduced by M. Linden under the name of *A. rachirrhizæ*. The fronds are ovate with a long tail-like apex, prolonged in the form of a filiform proliferous rachis several inches beyond the pinnæ, bi-tri-pinnate; the pinnules obovate, the lower ones larger and divided into three or four similar pinnules or lobes, and those next to them having usually one such lobe on the anterior side. The rachis dark-coloured behind towards the base.

ATHYRIUM FILIX-FEMINA, var. *PARSONSII*.—Mr. Parsons, Welwyn: Second-class Certificate, June 26.—A curious and interesting British variety of Lady Fern, the chief peculiarity of which consists in the dimorphism of the fronds. The lower fronds are spreading, but partially fertile, broader and more leafy than the others; while the central ones are erect, more decidedly fertile, with the pinnules reduced in size, as well as narrower, and more distinctly set upon the rachis.

AUCUBA JAPONICA, var. *PICTURATA*.—Mr. Standish: Bronze Medal, May 21.—A finely-marked variety, having a large yellow blotch in the centre of the leaves.

AURICULA MRS. EYLES.—Mr. Holland, Isleworth: Commendation, April 9.—A distinct-

looking self-coloured variety of no special merit, except that the border of the flowers is of a slaty mauve or dove colour; rather pallid-looking, but contrasting well with most other sorts.

AZALEA ALTAOLERENSIS.—Messrs. J. & C. Lee, Hammersmith: First-class Certificate, May 6.—A fine, large-flowered, rich orange yellow, hardy Azalea, bred between *A. sinensis* and one of the Ghent hybrids. It bears very large heads of flowers, and is of free habit.

AZALEA (indica) BRIDE OF ABYDOS.—Mr. Barnes, Camberwell: Commendation, May 6.—A vigorous-habited variety of hardy constitution, producing an abundance of large white flowers of average form, marked with flakes of light rose or rosy pink.

AZALEA (indica) ELEGANTISSIMA.—Mr. Williams: Commendation, May 21.—A dwarf white of good habit, and a free bloomer, the flowers of average form and tolerably even, being occasionally striped with rosy carmine.

AZALEA (indica) DUC D'AREMBERG.—Messrs. F. & A. Smith, Dulwich: First-class Certificate, April 9.—A first-rate variety. The flowers of good form and firm; the colour a salmon pink with a broad distinct white margin, the pink slightly striped with carmine, and the base of the upper segments below the sinus spotted with deep rose red. Both in form and marking this is quite an acquisition.

AZALEA (indica) SOUVENIR DU PRINCE ALBERT.—M. Jean Verschaffelt, Ghent: Second-class Certificate, May 6.—A perfectly novel variety, remarkable for the beautiful colour of its flowers, which are of a bright and deep salmon rose, with a broad and very pure white margin, semidouble, but rather deficient in respect to form. Its fine and distinct colour will, however, render it very attractive as a decorative and exhibition plant.

BEGONIA IMPERIALIS.—Messrs. Veitch & Son: Second-class Certificate, May 6.—A dwarf-growing species, the leaves of which have a roughish shagreen-like surface, and are deep green marked with patches of blackish-brown.

BEGONIA IMPERIALIS, var. SMARAGDINA.—Messrs. Veitch & Son: Second-class Certificate, May 6.—A green-leaved form of *B. imperialis*, differing in the leaves being of a bright emerald green throughout. Both these are distinct and desirable dwarf-habited plants of their class.

BEGONIA MUTABILIS.—Mr. Harland, Hatfield: Second-class Certificate, May 21.—A variety of somewhat novel character, the ground colour reddish-brown marked and spangled with silver.

BIOTA, sp.—Messrs. Veitch & Son: Bronze Medal, May 21.—A fine-looking Conifer with elegant pendulous twigs, more slender than those of *Thuyopsis dolabrata*.

CALCEOLARIA CLOTH OF GOLD.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh: Second-class Certificate, June 26.—A desirable bedding variety of dwarf habit, growing from 6 to 9 inches high. The leaves narrow and deeply serrated; the flowers in fine compact trusses of a deep clear yellow, of medium size and firm substance. It appears to be a free and continuous bloomer.

CALCEOLARIA SUAVIS.—Messrs. Veitch & Son: Bronze Medal, July 2.—An herbaceous Chilean species, having arachnoid leaves and small light purple flowers, remarkable for their decided violet-like odour, and marked with deep sanguineous dots ranged in lines on the lower lip, the upper lip being very small, the mouth open, and the throat yellow marked with larger dots.

CALCEOLARIA PLANTAGINEA.—Messrs. Veitch & Son: Bronze Medal, May 21.—An herbaceous Chilean species, with broad, ovate, glossy, hairy leaves, narrowed into a long foot-stalk. The flowers clear yellow, with the lower lip much inflated; the upper one very small, and the throat marked with a few red spots.

CAMELLIA CONTESSA LAVINIA MAGGI.—Messrs. Veitch & Son: First-class Certificate, March 19.—A remarkably fine variety of robust habit, with much the colour and markings of *tricolor*, but the stripes brighter, and the flowers altogether superior in form, being quite double, with neatly-imbriated petals. The colour bluish white, with bold streaks and splashes of bright rosy carmine.

CHAMERANTHEMUM BEYRICHI.—The Society: First-class Certificate, April 22.—A variegated-leaved stove herb from Brazil, having oval leaves 4 to 5 inches long, dark mottley green with a broad stripe of white down the centre, radiating towards the edge.

CIBOTUM PRINCEPS.—Mr. Bull: Silver Knightian Medal, May 21.—A noble hothouse Fern, with large triangular tripinnate hairy fronds, glaucous on the under surface.

CINERARIA CARMINATA VARIEGATA.—Messrs. F. & A. Smith: Commendation, April 9.—A variety with well-marked creamy variegation, the leaves being broadly margined with yellowish-white.

CINERARIA LORD ELGIN.—Mr. James, Isleworth: Second-class Certificate, April 9.—A fine self-coloured, soft rosy or magenta-coloured variety, very effective as a decorative plant, besides having good properties.

CLEMATIS REGINÆ.—J. Anderson Henry, Esq., Edinburgh: Second-class Certificate, April 22.—A very fine hybrid raised from *C. azurea grandiflora* crossed with *C. lanuginosa*.

The cordate leaflets are slightly furnished, as are the stalks both of the leaves and flowers, with woolly pubescence; and the flowers are large, of a deep mauve or light violet colour about $4\frac{1}{2}$ inches across, and consisting of eight broadly-oval sepals, which measure about $1\frac{1}{2}$ inch across, and are somewhat woolly behind.

CERODENDRON THOMSONÆ.—Messrs. Jackson & Son, Kingston: Silver Knightian Medal, May 21.—A hothouse climber from Old Calabar, of rather slender habit and moderate growth, bearing oblong, ovate, acute leaves and cymose panicles of remarkably handsome flowers, which consist of a large, loose, white, five-cornered calyx, with the crimson-scarlet corolla just protruding from the points of its appressed segments.

CRINUM, sp.—Mrs. Speke, St. George's Road, London: Silver Banksian Medal, June 11.—This was stated to have been received from near the great central African Lake Victoria Nyanza. The plant has broad lorate leaves slightly crisped at the edge, and large white flowers marked down the centre of the segments with a broad deep red streak.

CYPRIPEDIUM BARBATUM, var. *GRANDE*.—Mr. Williams: Second-class Certificate, April 1.—This fine variety is most remarkable for its very broad dorsal sepal, which measures nearly $2\frac{1}{2}$ inches across, and is white with strong veins green below changing to purple in the upper part. The lip of a deep brown purple, and the petals pale rose-coloured towards the tips, greenish-brown towards the base, and slightly warty on the upper margin.

CYRTOMIUM ANOMOPHYLLUM.—Mr. Standish: Second-class Certificate, April 22.—This Chinese and Japanese Fern is an elegant pinnated species of erect habit, differing from *C. falcatum* in its smaller-sized pinnæ, of thinner texture; and from *C. euryoides*, to which it is most closely allied, in its narrower fronds and more numerous pinnæ.

DAMMARA, sp.—Messrs. Veitch & Son: Silver Banksian Medal, May 21.—An evergreen shrub exhibited as a Japanese *Dammara*; it had lance-shaped green shining leaves.

DELPHINIUM BICOLOR GRANDIFLORUM.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh: Commendation, June 11.—A showy variety with large flowers. The sepals a dark blue; the petals creamy white.

DENDROBIUM CUCULLATUM, var. *MAJUS*.—Messrs. Low & Co., Clapton: First-class Certificate, March 19.—A fine epiphyte from Moulmein. The long, slender, drooping stems were furnished with lanceolate oblong leaves, and numerous large flowers. The sepals and petals pale purplish, and the pubescent lip broadly cordate, concave, and cream-coloured.

DENDROBIUM FALCONERI.—Mr. Sherratt, gardener to J. Bateman, Esq., Knyppersley Hall: Silver Knightian Medal, June 11.—A rare and beautiful Indian Orchid, the white flowers tipped with rich rose purple, and marked on the lip with a deep sanguineous purple spot surrounded by yellow.

DENDROBIUM NODATUM.—Messrs. Low & Co., Clapton: Silver Banksian Medal, July 2.—A pretty epiphyte from Moulmein, having dwarfish moniliform stems, oblong lanceolate leaves; pale creamy yellow flowers, with a cordate lip of a deep orange yellow, creamy at the acute tip and marked with two small deep crimson spots at the base.

DENDROBIUM SALACENSE.—Messrs. Low & Co., Clapton: Silver Banksian Medal, May 31. A distinct and handsome Indian epiphyte with upright rod-like leafless stems, bearing short crowded racemes of small orange-coloured flowers from their nodes. The segments are each marked with three or four distinct red stripes on their face.

DRACENA GHIESBREGHTII.—Mr. Bull, Chelsea: Second-class Certificate, April 22.—An elegant conservatory plant from Mexico, with long, green, narrow leaves, erect at the base, and then arching outwards, so as to form a pretty head.

DRACENA, sp.—Messrs. Veitch & Son: Silver Knightian Medal, July 2.—A dwarf-habited stove plant with broad elliptic leaves, dark green, much blotched with yellow green disposed in roundish patches which become variously confluent.

EPIDENDRUM PRISMATOCARPUM.—R. Warner, Esq., Broomfield: Bronze Medal, July 2. A neat and pretty epiphyte, with the flowers in an erect raceme. The sepals and petals pale greenish-yellow; the former marked with large conspicuous deep brown blotches, the latter rarely spotted. The lip small, pale rose colour.

ERANTHEMUM VERBENACEUM.—The Society: Second-class Certificate, April 22.—A stove Acanthad, with ovate-lanceolate leaves nearly covered with dull silvery variegation.

EURYA ANGUSTIFOLIA.—Mr. Standish: First-class Certificate, May 6.—A compact Japanese bush provisionally so named, with narrow or lanceolate acuminate leaves, broadest above the centre, and having an irregular edge of cream colour, distinct, of ornamental character.

FICUS COOPERI.—Messrs. Veitch & Son: Silver Banksian Medal, May 21.—A bold erect shrub from New South Wales, with large, elliptic, dark green leaves, narrowed and subcordate at the base, acuminate at the apex, the midrib and principal veins conspicuously marked out by red lines both above and below.

GENISTA EVERESTIANA.—Mr. C. Everest, Albert Nursery, Reading: First-class Certificate, April 22.—A seedling raised by Mr. Everest, and forming a fine, close-habited, free-growing bush, with small leaves having short obovate blunt-ended leaflets. The flowers pro-

duced in long spikes, sweet-scented, and of a rich orange-yellow colour. Quite distinct from, and much superior to, all other Genistas.

GOODYERA DOMINII.—Messrs. Veitch & Son: First-class Certificate, June 11.—A dwarf stove Orchid raised between *G. discolor* and *Anæctochilus*. It had bold dark olive green leaves marked with several longitudinal pinkish lines.

GREVILLEA HILLII.—Messrs. Veitch & Son: First-class Certificate, April 9.—A fine Australian conservatory shrub, with leaves very much resembling the fronds of some pinatifid Fern, having a few long segments nearly an inch wide, connected by a leafy wing which is continued partially down the stalk.

LÆLIA SCHILLERIANA.—Messrs. Veitch & Son: Silver Banksian Medal, May 21.—A bright coloured plant, something in the way of *L. purpurata*, and said to be a small light-coloured form of *L. Warneri*. The flowers had white sepals and petals, and the lip was white towards the base, and in front very much filled, and of a bright purple rose, which colour extended to the points of the side lobes, and was continued down the centre almost to the base.

LAPAGERIA ROSEA, var. *ALBIFLORA*.—Messrs. Veitch & Son: Silver Knightian Medal, July 2.—A superb greenhouse climber from Chili, exactly resembling *L. rosea* in habit and foliage. The flowers of a pure waxy white, and very beautiful.

LASTREA FILIX-MAS, var. *BOLLANDII*.—Mr. Bull: Second-class Certificate, June 26.—A curious and handsome English variety of the Male Fern with crispy foliage. The fronds bipinnate, with enlarged oblong decurrent pinnules, which were notched with broad roundish incurved lobes.

LIGUSTRUM JAPONICUM AUREO-VARIEGATUM.—Messrs. Veitch & Son: Bronze Medal, June 11.—A variety with the leaves prettily variegated with creamy yellow.

LILIUM AURATUM.—Messrs. Veitch & Son: Silver Knightian Medal, July 2.—A beautiful species from Japan, bearing large horizontal flowers, 8 or 10 inches across, the segments of the perianth somewhat recurved. The colour white, with a deep yellow streak down the centre of the segments and dotted over with deep brown purple warts. The scent deliciously aromatic.

(To be continued.)

THE METROPOLITAN EXHIBITIONS.

ROYAL HORTICULTURAL SOCIETY, *October 8th*.—A brief report of the fruit department of this great Exhibition having already appeared, a few notes on the vegetables shall now be arranged by way of continuation and completion.

A success this aspect of the Show can hardly be termed. As an experiment it was useful—it gave a kind of outline of what should be reproduced on a larger scale and what, no doubt, will be seen should a like opportunity again be offered. The two gentlemen who officiated as Judges evidently did their best to discharge their duties, though the novelty of the position seemed to harass them sadly. It was amusing to observe them tasting raw Beetroots for the purpose of testing their flavour, chewing a colourless root as well as a high-coloured specimen. The most fitting jury would be a trio of gentlemen selected from the leading wholesale seed establishments, who at their trial grounds in the suburbs of London test the merits of all new vegetables as they are sent out, and by this means prove often that they are but reproductions of those already in growth.

The first five classes in the schedule were devoted to Potatoes. Size seemed to be the ruling feature, and the most unheard-of names were in some instances affixed to the roots. With a collection Mr. S. Robinson, Shaw House, was first, having Red Regent, Birmingham Prizetaker, Red Kidney, and Jenny Lind; and of white varieties, Champion, Flour Ball, Fluke, Melton Hero, Lapstone Kidney, Jackson's Seedling, Pink-eyed Regent, and Ready Penny. With six kinds of Kidneys Mr. E. Bennett, Worktop, was first with Alstone, Red Ashleaf, Fluke, Lapstone, Barladoe, and Early Stockton. The same exhibitor was also first with six kinds of round varieties—viz., Malakoff, Dalmahoy, Scotch Cup, Early Oxford, Early Sydenham or Model, and Dawe's Matchless (a variety of Pink Regent). Mr. J. Choyce, Atherstone, was first with Kidney Potatoes, one variety; having King's, a seedling from the Fluke. Mr. Green, Kelvedon, was second with Webb's Imperial, a pleasing tuber to the sight, but said to be a great failure. With a round variety Messrs. Hendry & Peters, of Eynsford, was first with Prince Regent; second, Mr. Bennett, with a sport from Wellington. The Onions were the best class among the vegetables, some remarkably fine tubers being present. Mr. J. B. Whiting, The Deepdene, was first with White Reading; second, Mr. S. Snow, West Park, with Brown Globe, of an unusually large size. Among other varieties were Blood Red, Flat Tripoli, and Danver's Yellow, the latter from Mr. H. Pomroy, of Hensol, Glamorgan, and having the reputation of being the best keeping Onion grown, and

very hardy. Mrs. Sweetlove, Maidstone, and Mr. Westbrook, Abingdon, were first and second with Carrots, both having Intermediate or James's Green Top. With Parsnips Mr. Choyce was placed first with Student, Professor Buckman's new hybrid variety: second, Mrs. Sweetlove, with Hollow-crowned. Mr. A. Sievwright, Bracknell, had some fine green Artichokes; and Mr. Stroud was next with the purple variety. Messrs. A. Henderson & Co., Edgeware Road, were first with Mitting's Crimson Beet; second, Mr. Cattell, Westerham, with Cattell's Purple-topped. These two were high-coloured, and the texture of the flesh all that could be desired. The roots generally were very small, and some of the varieties seemed to be but synonyms of the others. With three kinds of Turnips Mr. Choyce was first with Green Top Six Weeks, Orange Jelly, and White Stone; second, Messrs. Ivory and Son, with Snowball and the Green and Red Top Six Weeks varieties, two admirable Turnips for winter work. Messrs. Veitch & Son had a selected Red Globe garden Turnip, which was only selected from the Rep Top Six Weeks variety. Mr. W. Kaile and Mr. Earley had roots of Salsafy; Scorzonera was very small, and the prizes were consequently withheld. Mr. H. Bwyne, Merthyr Tydvil, had Veitch's Perfection Pea; and Mr. Williams, of Alton, Knight's Tall Green Marrow. Both had been kept far too long. Mr. G. Scymour, Reading, was first with Brussels Sprouts; and Mr. Whiting second. These, together with some of the Borecoles, were placed in pots, a plan which kept them fresh and green. Mr. Cattell, Westerham, was placed first with Borecoles, having McIlville's Variegated, Jerusalem (a purple variety), Thousand-headed, Buda, or Asparagus; Chou de Milan and Feathered Scotch, a good strain of Dwarf Canada. Messrs. Frisby & Horley had heads of Walcheren Broccoli. Mr. Whiting had fine Drumhead Savoy, and Mr. Cattell the Dwarf Uber, a small but delicious table variety. Mr. Choyce was first with six large heads of Pickling Cabbage; and Messrs. Ivory & Tillyard had Chinese Yams, but small in size. Mrs. Sweetlove was first with three heads of Cole's Red Celery; and Mr. Lidyard was second with Manchester Red, both of large size. The last-named was also first with a white variety called Wall's Incomparable. Mr. W. Earley, Hammersmith, was first with six heads of White Curled Endive, and Mr. Sawkins, Bromfield, with Green Curled. With four heads of Cardoons Mr. Pottle, of Woodbridge, was first; and Mr. Field, Dorking, second. The best specimens came from Mr. Whiting, of the Deepdene; but having three heads only, from a misconception of the number required, he was unable to compete. Mr. Young, of Highgate, and Mr. Dye, of Aylesbury, had dishes of Mushrooms; Mr. Wainright, of Kettering, a dish of fine Truffles; and Mr. Halls, of Colchester, some Cucumbers. Some Parsnips were exhibited by Professor Buckman that attracted much attention—the wild variety; the Long-horned, selected from the first; and the Student, derived after ten years' cultivation of the wild variety. Fruited plants of Tomato de Lave also came from Messrs. A. Henderson & Co.

The contributions to the Floral Committee did not embrace much novelty. Messrs. Low & Co. had *Phalænopsis Lowi*, to which a First-class Certificate was awarded; also a batch of *Caladium Lowi*, having bright green leaves with white veins when young, but said to become very like *C. Veitchii* with age. Messrs. Veitch & Son had *Eugenia robusta*, a hybrid between *E. Ugni* and *Myrtus Americana*, *Vanda cœrulea*, *Lapageria alba*, *Stenogaster concinna*, &c. Mr. George Smith, Islington, had *L. belia albocœrulea*, white blotched with azure blue, a seedling from *L. speciosa*. Mr. B. S. Williams had *Achimenes Mauve Queen*; Mr. Turner, seedling *Dahlia Charlotte Dorling*; and Mr. T. Leslie, his promising seedling *Dahlia Lord Russell*. Messrs. Downie, Laird, & Laing had *Pentstemon Mrs. Steans*, bright crimson with white throat, to which a First-class Certificate was awarded. Some other striking seedlings were also shown by the same exhibitors. Mr. Bull, of Chelsea, had new and rare plants; Messrs. E. G. Henderson & Son *Pomponé Dahlias* and *Tree Carnations*, and Messrs. Paul & Son cut *Roses*.

ROYAL HORTICULTURAL SOCIETY, CHRYSANTHEMUM SHOW, *November 11th*.—A few prizes were offered for plants and cut blooms of the above in connection with the meeting of the Floral Committee for this date, and brought together a very nice display of this cheerful autumn flower. With six plants of large-flowering kinds Mr. Ward, gardener to G. Fowler, Esq., Tottenham, was first, having finely-bloomed plants of *Annie Salter*, *Vesta*, *Golden Christine*, *Alma*, *General Havelock*, and *Queen of England*. Second, Mr. Glover, gardener to R. Lepage, Esq., Tulse Hill, with *Trilby*, *Golden Christine*, *Alma*, *Vesta*, *Dr. Maclean*, and *Chevalier Damage*. Extra prize, Mr. C. Turner, Slough. With three plants of large-flowering kinds, Messrs. Ward & Glover had equal second prizes awarded to them, the first prize being withheld. The former had *Defiance*, *Beauté du Nord*, and *Chevalier Damage*; the latter *Bouquet de Flore*, *Lucidum*, and *Prince Albert*. With six plants of *Pomponé* kinds, Mr. D. Hutt, Hackney Road, was first, having splendid plants of *Golden Cedo Nulli*, *Duruflet*, *Général Canrobert*, *Cedo Nulli*, *Salomon*, and Mrs. Hutt, a pleasing rose-coloured seedling that will take a place among exhibition flowers, and to which a First-class Certificate was awarded. Second, Mr. Weston, gardener to D. Martineau, Esq., Clapham Park, who had good plants of *Attila*, *Cedo Nulli*, *Général Canrobert*, *Duruflet*, *Andromeda*, and *Miss Julia*.

Messrs. Turner & Ward were also awarded extra prizes for some good plants. With three plants Messrs. Ward and Hutt were placed equal second, the first prize being again withheld. Mr. Ward had *Cedo Nulli* and its golden variety, and *Requiqui*; Mr. Hutt had *Salomon*, *Cedo Nulli*, and *Duruflet*. The best of the *Pompone* varieties were trained on wire and were, therefore, very symmetrical. Some plants grown as pyramids were also present, and indicated good cultivation. Some extremely fine cut blooms were produced. Mr. T. B. Robinson, of Islington, was first with *Queen of England*, *Plutus*, *Nonpareil*, *Lady Hardinge*, *Novelty*, *Boadicea*, *Jardin des Plantes*, *Beauty*, *Maréchal Duroc*, *Dupont de l'Eure*, *General Hardinge*, and *Cassandra*. Second, Mr. Cattell, Westerham, who was also placed first with miscellaneous cut blooms, having fine examples of *Plutus*, *Miss Slade*, *Penelope*, *Duchess of Wellington*, *Rosette*, *Lady Margaret*, *Golden Hermione*, *Juno*, *Ambrose*, *Jardin des Plantes*, *Alarm*, *Bacchus*, *Emily*, *Glory*, &c. Mr. Bird, of Stoke Newington, had a fine group of flowers, among which were *Jardin des Plantes* (exceedingly fine), *Nil Desperandum*, *Dupont de l'Eure*, *Queen*, *Li le Pet*, &c.

Certificates of merit were awarded to *Chrysanthemum laciniatum*, a white fringed variety sent from Japan by Mr. Fortune, exhibited by Mr. Standish, Bagshot; also to Mr. Salter, Hammersmith, for *Princess of Hesse*, *Princess Alexandra*, *Abbé Passaglia*, and *Duchess of Buckingham*—four large-flowering kinds of pleasing shades of colour. It is to be hoped that the Horticultural Society will hold an autumn exhibition of this favourite flower now that the Crystal Palace Company have discontinued their annual show.

And now a word or two to place myself right with Mr. Dodds. I was correct in regard to the fact, but wrong in the application of the judgment to the class. I thank Mr. Dodds for the correction of a statement by no means so incorrect as he would lead me to infer.

Quo.

REVIEW.

Wild Flowers of Great Britain, Illustrated by Charlotte Gower, and Botanically and Popularly Described by Robert Hogg, LL.D., F.L.S., and G. W. Johnson, Esq., F.R.H.S.

The nineteenth Number of this cheap and excellent work has reached us, and we detect in it the same careful descriptions and correct nomenclature that have elicited our previous commendations in its favour. Every one, in fact, should possess this work who wishes for accurate information on the vegetable world around them.

THE LATE MR. ROBERT GLENDINNING, F.R.H.S.

It is with sincere regret that we announce the death of Mr. Robert Glendinning, of the Chiswick Nurseries, at the early age of fifty-seven. Mr. Glendinning had suffered from a painful complaint for a considerable time, which finally undermined an originally strong constitution, and terminated in his death on the 9th of November. Mr. Glendinning was so well known as one of the most active members of the horticultural body, that a lengthened notice of his life would be superfluous to most of our readers. We may, however, briefly remark that, a native of Lanark, in Scotland, he came to England at an early age; and, when a very young man, obtained the appointment of gardener to the late Lord Rolle, at Bicton, in Devonshire, where his energy and talent soon became conspicuous, and immediately placed him in the front ranks of British horticulturists. Mr. Glendinning possessed indeed, in a degree we have rarely seen equalled, a clear, sound judgment on all subjects connected with his profession; and, whether as a practical gardener or writer, or as a professional designer, he was equally sagacious and happy in his ideas and opinions. The improvement of the gardens at Bicton was commenced by him; and the arboretum there, designed and planted by himself, will long attest the skill and comprehensiveness with which it was originally planned. Mr. Glendinning having established his fame as a horticulturist, he was much sought after for his advice; and this led him to accept the offer of a partnership in the nursery of Lucombe, Pince, & Co., of Exeter, with the view of entering largely into the department of landscape gardening. This alliance was, however, but of short duration, and Mr. Glendinning came to London and took the nursery formerly occupied by Mr. Williams, at Chiswick, which, under his proprietorship, soon assumed a new form, and became the repository of one of the most select and best-cultivated collections of nursery stock to be met with round London. Mr. Glendinning contributed largely some years ago to the *Gardeners' Chronicle*, the "Journal of the Horticultural Society," and other gardening periodicals, and very materially assisted the late Mr. Loudon in his various publications. In private life Mr. Glendinning was warmhearted and sincere, and much esteemed by a very numerous circle of friends for his many excellent qualities of head and heart. Happily he leaves two talented sons to carry on his business, who, we hope, will meet with the support they merit.—S.

CALENDAR OF OPERATIONS.

CONSERVATORY.

SPARE no pains to make this house as gay and inviting as possible at this season, when it will be most appreciated. Chrysanthemums will be in perfection the greater part of the month, but as soon as any of the plants is past its best it should be removed. Pick all dead leaves and flowers off immediately they show symptoms of decay; keep the plants well watered. Water well Camellias coming into flower. Introduce plenty of Primulas (of which there are now fine strains), Cinerarias, Mignonette, Violets, Tulips, Jonquils, &c.; also a few nice variegated plants. Attend carefully to the watering. Pay special attention to the arrangement of the plants and to cleanliness. Give air freely in the early part of the day when the weather is at all fair, and close-up early in the afternoon. Fire heat will now be more or less necessary, according to the state of the weather. In cold frosty weather maintain a temperature of about 40° during the night, and 50° in the day; in open weather a higher temperature will do no harm. Always take advantage of sun heat, and use no more fire heat than is absolutely necessary.

GREENHOUSE.

Give air freely every day the weather permits, always guarding against cold draughts. Fire heat should only be used when absolutely necessary. In frosty weather use coverings as much as possible; it is preferable to too much fire heat, which only excites and weakens the plants. Keep the plants constantly cleaned and turned about, so that all sides may have the full benefit of sun and air. Stake and tie-out all specimens that may require it, and look carefully over all the plants, and loose any ties that may be rather tight. Attend carefully to the watering.

STOVE.

This house should now be very gay with Begonias, Euphorbias, Poinsettias, Justicias &c. Attend carefully to the watering, and pick-off all leaves and flowers that show signs of decay. Ventilate freely in fine weather. Maintain a temperature of about 60° during the night, and 70° during the day.

FLOWER GARDEN.

The protection of choice and tender flowers will now be one of the principal things requiring attention here, as we may expect more or less frost for some time. Protect tender Roses, and proceed with planting hardy ones when the weather is favourable. Clean and dig borders; sweep and roll grass and walks in open weather. *Pleasure Grounds.*—Plant trees and shrubs in mild weather, and secure them well to stakes to prevent them being blown about by the wind. Cover the soil round the roots with rotten leaves or dung to keep the frost out. Any good specimens of choice plants, that are liable to suffer from severe frost, should have a slight protection during the depth of winter. Proceed with alterations in favourable weather. Dig borders. Now the leaves are all off, every nook and corner should be well cleaned out to prevent the leaves being blown about.

FORCING.

FRUIT.—*Pine Apples.*—Fruit that is ripening should have a dry warm atmosphere, and liberal supplies of air in fine weather. Plants that are intended to start next month for the early supply of fruit should still be kept at rest, in a temperature not below 60° during the night. They should have air whenever the state of the weather permits; it should be given early in the forenoon. Plants for autumn fruiting should be kept steadily growing, not over-excited. A good bottom heat is the first point to be well attended to. They will not require much watering, but it is preferable to give a little at roots to keeping the atmosphere of the house too moist. Give air carefully. Plants in bloom should have a dry heat, and all the light and air possible. Attend carefully to the succession plants. In severe frosty weather use coverings as much as possible, in order to obviate the necessity of too much fire heat, which, in the absence of solar light, weakens the plants. Maintain a temperature of about 60° during the

night, and 70° during the day, with an increase by sun heat of 10°. Keep a tolerably dry atmosphere. *Vines.*—If the early house was started in October as recommended, the Vines will now be breaking. Remove at once all the weak buds, and such as are not wanted; when sufficiently long, tie-in carefully. As the shoots advance in growth, raise the temperature gradually up to 60° by night and 70° by day, with an increase of 10° by sun heat. Give air freely when the state of the weather permits, and always as early in the forenoon as possible. Avoid keeping too moist an atmosphere, which is decidedly wrong at this season of the year. Attend to the proper watering of the inside borders. See there is a proper heat in the outside borders. The directions given last month for the early house will apply to the second house this month. Towards the end of the month a third house should be started. Keep the late vinerias as dry as possible without using too much fire heat; examine the bunches frequently, and cut out all decaying berries. *Peaches and Nectarines.*—To have ripe fruit in May, the early house should now be started. Give all the inside borders a good watering. Maintain a healthy moist atmosphere; syringe the trees two or three times daily with tepid water, and ventilate freely in fine weather. Keep the temperature from about 40° to 45° during the night, and 55° to 60° in the daytime, with an increase of 8° or 10° by sun heat. Keep a nice steady heat in the outside borders by fermenting materials or other means. Dress and tie trees in the late houses in bad weather. *Figs.*—In frosty weather use sufficient fire heat to keep out the frost. This is a good time to shift any plants in tubs or pots that may require it. Use a compost of turfy loam and leaf soil, and put plenty of drainage in the tubs and pots. *Cherries.*—Those plunged out of doors must have the roots well protected from frost by a good covering of leaves or dung. *Strawberries.*—If these have been ridged as recommended last month, the roots will be safe from injury. In frosty weather, some protection should be placed in front of the plants to protect the crowns from injury. A batch of plants for early forcing should be put on shelves near the glass in a cold house, where they can have abundance of air when the state of the weather will admit of its being given. No more heat will be required at present than is sufficient to keep out the frost. *Cucumbers.*—See the bottom heat is regular and uniform. Keep the shoots and foliage thin; never overcrop. Let them have all the light possible, and plenty of air when the weather permits. Maintain a temperature of about 65° during the night, and 70° to 75° in the day.

HARDY FRUIT.

Keep the fruit-room as dry and cool as possible. Look daily over the store of fruit, and pick out all decaying ones. Plant trees of all kinds in open weather; it is better done now than put off till spring, when good plants are difficult to get in the nurseries. Give all newly-planted trees a good dressing around the roots of rotten dung. Prune and nail wall trees in fine weather. Gooseberry and Currant bushes may be pruned in frosty weather, if it be not too severe and cold; also standard Apple and Pear trees. British Queen and other tender Strawberries should have a good dressing of dung to protect the crowns from injury.

KITCHEN GARDEN.

See there is a sufficient quantity of Parsley protected in case of bad weather. Cover Celery-ridges in frosty weather with dry straw. Cauliflowers that are heading will be best taken up or laid-in in cold pits. Endive and Lettuce should also be taken up and put into cold pits or frames. Cover well the roots of Globe Artichokes with dung; also Rhubarb and Sea-kale. In open weather dig, trench, or ridge vacant ground. In frosty weather all wheelbarrow-operations should be pushed forward. In bad weather, when no out-door work can be done, get all things in readiness that may be wanted later in the season. Sharpen and dress stakes of all kinds, also pegs. Cut shreds, dress nails, prepare labels, make basons, and all other things of this kind.—M.S.

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THE
FLORIST AND POMOLOGIST:

A PICTORIAL MONTHLY MAGAZINE

OF

FLOWERS, FRUITS, AND GENERAL HORTICULTURE,

CONDUCTED

BY ROBERT HOGG, LL.D., F.L.S.,

ASSISTED BY MR. THOMAS MOORE, F.L.S.,

AND NUMEROUS ABLE CONTRIBUTORS,

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TO

HER ROYAL HIGHNESS

THE PRINCESS OF WALES,

THIS VOLUME

OF

THE FLORIST AND POMOLOGIST

IS MOST RESPECTFULLY DEDICATED

BY HER ROYAL HIGHNESS'S HUMBLE SERVANT,

THE EDITOR.

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André Leroy d'Angers Rose.

THE
FLORIST AND POMOLOGIST.

ROSE ANDRÉ LEROY D'ANGERS.

WITH AN ILLUSTRATION.

WE are indebted to Mr. Standish, of Bagshot and Ascot, for the figure of this fine new Rose, which we are enabled to present to our subscribers. We learn that it is a seedling from Général Jacqueminot, and that it was raised by M. Victor Trouillard, of Angers, an enthusiastic cultivator of Roses, and himself at once the manager of the extensive Rose-nursery of M. Leroy, and the raiser of many new and choice varieties.

The present novelty which, as our figure shows, is a Rose of great beauty, is in the hands of Mr. Standish for distribution. The habit of the plant is free and vigorous. The flowers are large and cupped, well filled out with petals, which are broad and remarkable for substance and smoothness of texture. The colour is a very rich, deep, velvety purple crimson. Altogether, we regard this namesake of M. Leroy as an acquisition of no mean importance among the better class of dark Hybrid Perpetuals, combining as it does high qualities both as to its growth and also as to its flowers, with a rich and most desirable colour.

There have been other Roses named in compliment to M. Leroy; but with respect to the application of his name to that now figured, we are informed—(1) that M. Trouillard was desirous of naming one of his own seedlings after his employer; (2) that, from the whole series raised by his foreman, M. Leroy himself selected to bear his name the subject of these remarks; and (3) that he repudiates all other varieties to which his name has been given. To avoid confusion, however, M. Trouillard's Rose has been specially distinguished by the name of André Leroy d'Angers.

Roses like the present, of full cupped or semi-globular form, have an immense superiority over the flat hard-centred varieties which once were so commonly seen on our exhibition tables, and are even yet not extinct. Even the more open form of sorts like Général Jacqueminot we may remark, though we do so with a wholesome fear of acute Rose critics before our mind's eye, is barely compensated by brilliance of colour and excellence of habit, although there may be varieties of this character which, like the Général himself, stand

deservedly high in the opinion of rosarians on account of other estimable characteristics, either separate or combined. There has latterly been a very great advance in quality in the class to which we are referring; and it appears to us that the exquisite varieties we now possess should be constantly kept forward as models, in order to save us the infliction of sorts possessing inferior character, or no character at all. We allude especially in these observations to such superb Roses as *Senateur Vaisse*, *Beauty of Waltham*, *Madame Furtado*, *Comtesse de Chabillant*, and *Madame Vidot*, the reputation of which, as leading varieties of their respective colours, is now fully established. We should like to see groups of these made prominent as test flowers at all future exhibitions by having prizes specially offered for them, this being continued until they were thoroughly beaten by something better, when the victors should step into their prominent place. There would then always be at hand standards of the highest excellence for comparison with other varieties exhibited, whether old or new. The test would be a severe one, but the application of it would be wholesome.

CULTIVATION OF THE PELARGONIUM.

I HARDLY know whether I should do the most good towards promoting the successful cultivation of this favourite flower by warning your readers against the bad advice I have frequently read on the subject, or give the course of culture that I have for many years pursued myself with great satisfaction. I have, however, decided on the latter course; and I purpose in the present paper to state briefly my own practice, commencing with the plant after it has done flowering. This is generally the case about the end of June to the beginning of July. If there is convenient space out of doors, the plants are placed out for about a fortnight, and supplied moderately with water as often as they become decidedly dry. Care is taken that they receive no injury from strong winds or any other cause. If there is not convenient space for them out of doors they are kept in the greenhouse, and all the air admitted that is possible. The time of cutting-down is from the 1st of July to the 1st of August; the earlier in July the better—the plants break with more vigour, and make much larger and better plants than those out of doors at a later period, enjoying as they do a longer period of fine growing weather before winter. They are allowed to become quite dry before being cut, and are kept so for four or five days afterwards to allow the wounds to heal, and are exposed to the full influence of the sun and air; a little water is then given round the edge of the pot and repeated as needed, the quantity given being increased as the young leaves become developed. The “cutting-down” as to the length of the shoots to be left depends somewhat upon the habit and size of the plant, the object being to induce such growth as will make the best shaped plants; but generally the shoots are left with two or four plump buds on each, besides the small incipient buds at the base of the shoot. When the new growth is about an inch long the plants are “shook out,” every bit of soil removed, and the roots pruned of all matted fibres, and are repotted into the smallest pot that the roots will easily go into. Care is taken to get the fresh soil well in amongst the roots, which is best accomplished when the soil is somewhat dry. The potting being finished, the pot is dipped into a bucket of water deep enough to cover the surface of the soil, and quickly withdrawn: this moistens the soil better than the usual way of watering the surface. The plants are kept close, and if the weather is bright a little shade is given until the emission of fresh roots, when the plants are gradually exposed to the sun and air. As soon as the roots are sufficiently

numerous the plants are *shifted* into the next size pot, when attention is given to training; then tying-out the shoots so as to form a semi-globular head, and expose the foliage equally to the influence of the light and air. Water is given only when they are dry, and in quantities sufficient to moisten the whole ball; and generally, and by preference, this is given in the morning, and not, as is the practice with many, in the evening. The plants are placed with ample space for growth, the number being regulated by the space. Attention is constantly paid to cleanliness and *fumigation*, never waiting to see a second aphid, but give a *smoking* reception to the first that comes. Delay in doing this would be very unwise—the increase is so very rapid, and the mischief they do very great. Occasionally a plant will grow irregularly, one or more shoots growing much stronger than the rest. When this happens it is well to stop all such shoots: the sap is thus distributed more abundantly to the weaker shoots, and a better head is formed.

When plants are wished to flower in May they should be shifted into the pots they are to bloom in by the early part of November; whilst those required to bloom in June may be repotted at the end of January, or early in February; but care must be taken not to overpot. A fine bloom can only be obtained when the pot is well filled with roots—too much soil induces growth and not flowers; neither are the flowers so fine, either in size or colour, as when the soil is full of roots. As the plants increase in size the shoots are tied to dry brown willow rods, and arranged according to their number so as to form the nearest approach to a half-globe, and when in flower the plants are shaded from the sun during three, four, or five hours in the middle of the day. Bees are carefully excluded by hanging thin nets over all openings.

The past season has been very prolific in seedlings, and I anticipate the new flowers this autumn will prove one of the best lots that have been raised for some years. It is most desirable to obtain these and any fresh sorts as early as possible. Valuable time is lost when they are left in the nurseries until the spring. After a cutting is struck, it should be pushed forward and not be allowed to want anything needful for a single day, if you would give it a fair chance of blooming in its true character.

The soil I use is composed of the top spit of sods from strong loam, laid up with an equal bulk of stable litter for twelve months, when it is chopped-up and well mixed (if you have it, or can get it, a little good leaf mould may be added), and an eighth part of sharp sand.

OMICRON.

THE EXHIBITION OF MELONS.

I AM disposed to dissent from the present plan of exhibiting Melons. The usage is to award prizes for flavour only, irrespective of any other consideration. Size, symmetry, colour, weight, and newness—considerations that have their weight with every other class of fruit, are all ignored: consequently, it is often seen that a small ill-favoured-looking fruit gains the first prize. At the Show at the Crystal Palace on the 3rd of September, in the two classes for Scarlet and Green-fleshed Melons, sixty-two were staged. Taking them as a whole they were the finest collection of fruit I ever saw. Looking about me for new Melons, I noticed from one exhibitor in Wales two remarkably handsome specimens, one of Garibaldi, a Scarlet-fleshed variety sent out by Mr. Tiley, of Bath; and another of Eclipse, a Green-fleshed kind, from Mr. Turner, of Slough, of which “great expectations” were formed, coming as it did from the same source as that popular variety, “Scarlet Gem.” On examining the last-named at the incision

made by the Judges, I found it was not sufficiently ripened to possess the desired quality of flavour; the other looked all that could be desired. But here again was absent the extremely fortuitous characteristic of appropriate flavour. Looking to the winning varieties, I found in the class for Green-fleshed that a common-looking unnamed variety had taken the first prize, and a specimen of Egyptian Green-fleshed was second. In the other class Turner's Scarlet Gem was first, second, and third, and nearly the smallest specimens in the Exhibition; but fortunately for their growers cut just at the "nick of time." In the absence of all ascertainable data as to when a Melon may be said to have reached just that state of ripeness to possess the desired flavour;—when it is the one consideration alone that decides their merit at an exhibition, it must be admitted that it ranks among those affairs of chance that lie beyond the power of all professional skill or judgment to control.

Then as to the standard of flavour by which the Judges make their awards. There are clearly ascertained rules by which to judge flowers or plants, but no rule can be defined by which the quality of flavour can be ascertained. It cannot be aught else but a matter of individual taste, that will admit of very great latitude. Would two sets of Judges have reached exactly the same result regarding the Melons at the Crystal Palace? Uniformity of taste is as impossible as uniformity of features or creed. Where are the clearly-ascertained rules by which a trio of Judges shall reach the same result in a matter of individual taste? Even by the assistance of sherry to give a tone to the palate, I have no confidence in the correctness of the result that will be attained.

I call the judgment of Melons as carried out in the present day a sham, if flavour alone is to decide. If prizes for flavour find a place in the schedules, let there be also a recognition of weight, of symmetry and proportions, combined with colour and ripeness, and let newness have due consideration also, leaving it to the option of the Judges to make flavour a final court of appeal in the event of another point being required to bias their decision.

QUIS?

GOLDEN ESPEREN PLUM.

WITH AN ILLUSTRATION.

SYNONYME. — *Drap d'Or d'Esperen.*

THIS is one of the seedlings raised by that successful pomologist Major Esperen, of Malines. The seed was sown about the year 1832, and the tree first produced fruit in 1843.

The fruit is generally of a regular oval shape, about 2 inches long; but it sometimes assumes a roundish form, and it is marked on one side with a shallow but distinct suture, which is most distinct toward the stalk. The skin is very thin and delicate, transparent, and of a clear golden yellow colour on the exposed side, where it has a few crimson dots; but it is paler yellow on the shaded side. The flesh is yellow, tender, and melting. Juice abundant, rich, sugary, and finely flavoured, separating freely from the stone.

The tree is quite hardy, and makes a good pyramid. It is a very abundant bearer, small trees three years from the graft giving a good sprinkling of fruit. The shoots are smooth, long, and vigorous, and of a reddish-brown tinge. Leaves pretty large, oval, and somewhat obovate towards the base, coarsely and deeply toothed, and downy beneath.

This is a first-rate dessert Plum, handsome in shape, and beautiful in colour. Our figure was taken from fruit grown in the orchard-house of Mr. Rivers, of Sawbridgeworth.



Golden Esperen Plum.

IN-DOOR GARDENING.

I AGAIN attempt a social homily for the New Year on this subject. I write for those who are in the lowest stage of this pleasing recreation, not for those who have plant-cases, window greenhouses, small conservatories, and such like appliances that modern introductions are rendering facile for such a purpose. Higher discouragements than mine must be perused by these. A window-sill or two, inside and out, a table, a few pots and glass dishes, two or three dinner plates, any odds and ends that can be pressed into such a service—these are my agents, simple and not difficult to obtain. Supplement to these soil and moss, some charcoal and sand, and, easiest of all to provide and not the least important item—a constant round of attention, manifested with the fidelity of a sontry, that will come to the worker by a persistent everyday doing to be a thoroughly joyous occupation; and here is employment that will lighten even the pressure of trouble, break in upon the monotony of a comparatively cheerless life, as does sometimes a momentary gleam of sunlight through the fissures of one of our gloomy winter fogs, present a welcome engagement to those who, perchance by affliction, may be rendered incapable of out-door recreation, and certainly, by a simple appeal to the love of the beautiful that will well-up from somewhere in most men's natures, does touch a chord that makes the best music ring out from a satisfied heart, and cause a floricultural Crusoe to find some contentment in the isolation of his own house.

First, a few words only as to what was done during the summer months before passing on to a review of present enterprises.

My main endeavour was directed to blooming a few *Gladiolus* in pots; but I was too late in planting to achieve much success, owing to the pots being occupied by other tenants till the early spring. And let it be remembered that, for out-door attempts, I have only a small yard flanked on three sides by high buildings, and about 4 yards square. Within the precincts of this mannikin domain do I experimentalise. I unfortunately planted mostly late varieties, and this, combined with a wet and inclement spring, did not improve matters. I got a few, and they small spikes; but I gained some experience by the failure—that is a set-off against the small results.

I failed with Japan Lilies too. I planted three fine bulbs in large pots, and got some manure from a west-end florist, which became the abode of a herd of maggots, which ruthlessly attacked the bulbs. I had a promise of four large flowers from one plant; but, on the eve of the buds bursting, the enemy destroyed the promised flowers and my hopes together.

I led off my winter series with *Snowdrops* in pots, and the red and white autumn-flowering *Cyclamen* in plates of sand. The former I cannot succeed with in sand only, it causes them to rot; the best plan is to start them in a pan, and then transplant to the vessels in which they have to flower. The *Cyclamens* were very pretty, and have thrown up a profusion of leaves that are handsomely marked. I have the Double Roman *Narcissus* in flower in a plate, surrounded by the single Italians that are close in its wake. I have for an outer circle single Van Thol Tulips that are fast starting into growth; but as their taller colleagues will have shed their gay apparel ere the dwarfer occupants don theirs, I must endeavour to restore the balance by introducing one or two *Hyacinths* to be companions for the Tulips at the time of flowering. Next to these I expect to have in bloom Tulips and Crocuses in plates and pots. I am using soil and sand separately in the plates, to ascertain which suits best for the purpose; but I invariably employ a few small pieces of charcoal as drainage. *Hyacinths* in pots and in glasses also are rapidly developing themselves. I put charcoal in the latter, and they seem to thrive on it most unmistakeably. I always allow the water in a glass to be high enough to *submerge* the base of the bulb from which the roots start out, not *almost* to touch it. I think the roots start sooner in consequence, and with greater regularity. The next stratum in my horticultural formation is made up of *Jonquils* in plates, in sand; and another arrangement in plates of *Hyacinths* surrounded by *Scilla sibirica* and Winter Aconites. I use for the centre red colours—the blue *Scillas* will form a contrast with the *Hyacinths*, and the Yellow Aconites form the circle for all. I confess that I am somewhat apprehensive about the latter: I fear they are decaying faster than they vegetate. I saw last spring a circular glass dish some 7 inches in depth, filled with *Hyacinths* growing in moss, that pleased me vastly, so well had they flowered. I procured two of these this season. The smaller, about 12 inches in diameter, is filled with miniature *Hyacinths* planted in moss, and having for drainage about three-quarters of an inch of charcoal. Close to the edge of the vessel I have a ring of *Snowdrops*. The bulbs have rooted beautifully, and, attracted to the sides of the dish, almost entirely obscure the moss, and are feeding on the charcoal with a thorough zest; a larger dish has superadded to the moss some soil. On this I planted some Tulips, still lining with moss. On these again I placed *Hyacinths*, leaving spaces for the Tulips to throw up their flowers. All are starting admirably, and a delicate network of roots is likewise encircling the dish, and penetrating the charcoal. Even with the addition of the soil, these dishes are light; they occupy but a small space, and will make quite a display when in flower.

Last of all—and I have not enumerated the whole of the designs my fancy has fastened upon for widening my sphere of operations—last of all, I have a box outside the sitting-room window planted with a background of Hyacinths, and a foreground of Tournesol Tulips. Covered with ashes, they will rest quietly for a few weeks, till they, too, shall be summoned by Nature's inexorable law to present themselves among the gathering the opening spring will invigorate and smile upon.

And thus to the end of the homily; to be read by others, to be put into practice by some, I trust, in accordance with the fancy that shall direct them. Thus anticipating spring and summer in-doors, it becomes in some degree another of those benign home influences that give a bright side to many a lowering aspect of everyday life, and softens some of the sternness that clings to it like a parasite, side by side with its gentler contrasts.

Quo.

FRUIT-JUDGING AT KENSINGTON.

READING in your November Number an account of the International Show of Fruits, &c., I find that Mr. Bousie has led you into a sad mistake. The paragraph referred to reads thus:—

“Mr. Bousie seemed quite at a loss to discover why, if his fruit was disqualified because of being wrongly named, Mr. Lumsden's fruit, who was placed second, was not also rendered ineligible to compete, two of his dishes containing eight fruits each instead of six, as stated in the schedule.”

I beg publicly to inform Mr. Bousie that such is not the case. The three dishes of dessert Pears exhibited by me were properly named, and contained *only six* fruit each, as stated by the schedule.

I can inform Mr. Bousie that the three dishes of dessert Pears placed first had two dishes which contained eight fruits each—viz., Golden Russet and British Queen.

Bloxholm Hall, Sleeford.

D. LUMSDEN.

REVIEWS.

The Gardeners' Annual for 1863. Edited by the REV. S. REYNOLDS HOLE. London: Longmans.

THIS is the first issue of a publication which it is purposed shall appear annually. It contains some excellent papers by the Editor and several other gentlemen well known in the horticultural world; and, though they are void of novelty, some of them possess a freshness of style which, to some, will make them acceptable. The Editor discourses of “Roses: How to Grow and Show Them.” Mr. Rivers supplies a few “Fragments,” a sort of fireside chat about odds and ends. “D., of Deal,” gossips about some of the novelties of 1862. Mr. W. Paul has a paper on the Hollyhock. Somebody who seems to have a lot of names, to judge by the number of his initials, has a paper on “Cottage Gardening,” without any gardening in it. Mr. Turner, generally a man of few words, gives us the pith of his practice in growing the Cineraria in two pages. Rev. Joshua Dix wades through all the Metropolitan Exhibitions of the season, gathering here and there the most attractive objects, and presenting them to us in a sort of literary bouquet. The Editor has an article on “New Roses,” which tells us nothing about them. Mr. Standish treats us agreeably to the *crème de la crème* of the Japanese novelties. Mr. Dean, of Bradford, gives a selection of the best Pansies. A notice of “Greenhouses for Working Men by the Editor; “Select Lists of the Most Popular Flowers;” and a capital Florist's Calendar complete the volume.

We had almost forgotten the illustration by John Leech, which represents five of his “girls” seated in a Rose garden sipping an infusion of flowery Pekoe, a chubby little Cupid handing round *matériel*; and this is called “Love among the Tea Roses.”

Flower and Fruit Decoration. By T. C. MARCH. London: Harrison.

IF we had been asked what work connected with decorative gardening was most wanted in the present day, we should have answered, “Such a one as would instruct us how to arrange flowers and fruits for in-door ornament.” Almost every other gardening subject has been already treated upon over and over again; but never do we remember seeing this one made so much a matter of system as it is represented in the work before us. Mr. March has done good service to all those who, having a refined and elevated taste, do not know how

to apply it. Many of us can appreciate the beautiful when it is placed before us; but how to obtain or create it for ourselves we know not. Now, however, the path is plain. In Mr. March's very valuable book we are instructed, not only how to design and how to construct table ornaments and bouquets, but what is sometimes a more difficult task to many—how to harmonise and dispose of colours. We strongly recommend this admirable book to all lovers of the beautiful, whether in nature or in art.

SCRAPS ON PLANTING AND TIMBERS.

WE understand a large quantity of seeds of the Douglas Fir are being sent for Government from Vancouver's Island for planting in the royal forests and waste crown lands. A variety of timber is now much used by the trade, called "Pitch Pine," it is imported from America, and should, according to authority, be the produce of *Pinus rigida*, but on examination is more likely to be obtained from *Pinus Coulteri*, *ponderosa*, or *Benthamiana*. It is a very valuable timber, and its use is likely to increase considerably. Can any of your readers say which the timber is really produced from, as *Coulteri* is not hardy in Britain, but both *Benthamiana* and *ponderosa* are perfectly so? If the Royal Horticultural Society would send some competent person to investigate and report on the timber trees of British Columbia, they would confer a benefit on planters. Mr. Gordon has, I believe, nothing to do; why not dispatch him? He is, perhaps, the only person competent for the task.

Who is to investigate the banks of the Amoor rivers, where travellers tell us are magnificent trees which would be hardy in Britain? and who the Bokhara, Cashmerian, and Thibetian chains of mountains, the only spots likely to give us hardy trees and shrubs? It appears to me unfortunate sending collectors to climates where nothing hardy can be obtained, and the Society should remember that not all their Fellows keep conservatories.

Why not import the Tasmanian and Australian timber trees to South Africa as a commercial speculation? The Governor of the Cape should take this in hand.

R. S.

BRITISH FRUITS.—The *Spectator*, in noticing the International Show of the Royal Horticultural Society, states that, "The price of fruit in England is becoming preposterous, and the poorer classes see as little of it as they do of meat. There is no more reason why Grapes, for example, should not be cheap in England than why French Beans should not; and their cultivation in Devonshire and Hampshire—not for wine, but for food—would amply repay a speculator. Nothing pays better than a good orchard; yet a supply of fruit seems, instead of increasing, to diminish." We scarcely coincide with the author as to the value of English Grapes as an article of food, but we quite agree with him as to the scarcity of orchard fruit, which ought to be ten times more plentiful than it now is. There is no reason why thousands of bushels of Apples, Pears, and Plums, might not be grown in our hedgerows and in odd nooks and corners now occupied only by docks and thistles. The value of a good supply of the above fruit to the population of large towns can hardly be over-estimated, when liberally used as an article of food, as regards its effects on the health of the inhabitants, and they might be so cheaply preserved by drying as to be kept for the greater part of the year. Can nothing be done by large landowners towards this desirable object, or must it be left as a matter for private speculation.

ORCHARD-HOUSE FRUIT.—The failures attributed to orchard-houses, without interfering with the principle, may be accounted for in various ways; but the test of their value is best proved by the increasing demand for them everywhere; and in some country districts I hear of nothing else in the gardening way. At this season I have a house particularly useful to me, as it contains now good crops of late Peaches—True Bourdine, Late Admirable, and Catherine; I have also a few Salways, with the promise of an abundant crop of these latter, judging by the wood I have. Crawford's Early has not been good with me, which I cannot account for, unless the trees are growing too strong, as I have tasted it very rich and good; but this more than ever convinces me that the same kind of fruit will vary very much in flavour in different seasons. Every one should grow two Peaches, however small their house—I mean the Barrington and Walburton; they succeed the mid-season Peaches, and continue on the season until the late ones are in, and besides, produce very handsome fruit in profusion: indeed, about a fortnight since, my trees were quite a picture. I should not omit mentioning two Plums to amateurs, which are very useful at this season—the Old Golden Drop and the De Bavay Gage, which, under glass, are rich beyond expression, especially the former. I expect my late house will carry me on to the middle of November at least, and probably I may be able to keep a few Salways and a late kind of Rivers' and a Plum to December. Not so bad this for an amateur in his third year of orchard-house culture, considering I commenced with Hunt's Tawny Nectarine, and Early York Peach in July from trees in pots.

AMATEUR.

CALENDAR OF OPERATIONS.

CONSERVATORY.

GREAT attention must be given to the temperature of this house during the month. Forced flowers and many decorative and other plants, which it is sometimes necessary to introduce here, will require a warmer temperature than otherwise would be the case. It will be best to avoid a high night temperature, 40° to 45° will be sufficient. It is a good plan to keep a little fire during the forenoon, when a little air can be admitted, and to close early in the afternoon. In giving air be careful to guard against cold cutting winds, which are most injurious to forced flowers. Camellias will, some of them, be swelling their buds, and others will be in flower; they will require liberal supplies of water. Pay great attention to the watering of all sorts of plants. Keep up a good show of Hyacinths, Tulips, and Narcissus. Lily of the Valley should also be largely introduced at this season; it is very easily forced. Take up a quantity of roots out of the beds, pick-out all the plump crowns that will flower, and pot them twenty or thirty roots in a pot. If put into a little bottom heat they will soon come into flower; but it is the best practice to fill as many pots as you may want in the autumn. A few good specimen Azaleas will make a good show. In endeavouring to have a great blaze of bloom, avoid everything like crowding, and keep every plant as clean as possible.

GREENHOUSES.

Ventilate freely whenever the state of the weather permits, always guarding against cold draughts. Use no more fire heat than is necessary to keep out the frost, and to expel damp. Look over the plants occasionally and see they are clean and in good health. Attend carefully to the watering.

COLD PITS AND FRAMES.

Whenever the state of the weather permits these should have plenty of air. Nothing is more injurious to plants in pots than damp. Every care should therefore be taken to keep it out. Little in the way of watering will be required; but when necessary give it early in the forenoon of a fine day, and pull the lights off, so that the moisture may get dried-up. See they are well covered in frosty weather.

STOVE.

Attend carefully to the plants in flower. Water when necessary. Give air freely in fair weather, but always close up early. Keep a temperature of about 60° at night, and 70° during the day. Take advantage of bad weather to wash and clean every plant that may require it. It is rather too early to begin starting plants into active growth, but make preparations for doing so early next month.

FLOWER GARDEN.

Push forward alterations in open weather. See that everything requiring protection is covered sufficiently. We often have very severe frost during this month. Attend to the stock of "bedding" plants. Anything that you may be short of should be put no heat to get cuttings off. *Pleasure Grounds*.—Here, too, in open weather, alterations and ground-work of every description should be pushed forward. Hardy trees and shrubs of all kinds may be planted in mild weather; any liable to be blown about with the wind should be secured to stout stakes. This is also a convenient season for turning and fresh graveling walks.

FORCING.

FRUIT.—*Pine Apples*.—Raise the temperature gradually to the plants for summer fruit. About 65° at night and 75° by day will be sufficient for this month. See the bottom heat is about 85°. Give these plants a good watering of tepid water. Give a little air at every favourable opportunity, and keep a tolerably dry atmosphere. Keep the succession plants steady at a little lower temperature. *Vines*.—Attend to the stopping and tying-down of the shoots in the early

house, and as soon as they are set thin the berries. Keep a temperature of about 60° at night, and 75° during the day. Avoid too moist an atmosphere. Nothing is worse than the too common practice of throwing quantities of water on the floors of the house at this season. It may be very good practice in the month of June, but at the present time should be carefully guarded against. Keep a moist atmosphere in succession-houses until the Vines break, Start later houses, beginning with a low temperature, and gradually raising it every week until after the Vines break, when a maximum temperature of about 60° at night, and 75° by day will be sufficient. *Muscats* require a few degrees more. *Peaches and Nectarines*.—The trees in the early house will now be fast swelling their buds and coming into bloom. They should have all the air possible. Maintain a dry atmosphere, and keep a temperature of about 50° to 55° at night and 65° during the day. Start succession-houses. Give the inside borders a good watering. *Figs*.—These may now be started, beginning with a temperature of about 50° at night, and 60° during the day. Give the plants plenty of water, and keep a moist atmosphere. *Cherries*.—A few plants of these may now be introduced for an early crop; they will not do much good out this season unless they have a little bottom heat. A night temperature of 45° will be sufficient during this month. Give air freely when the weather permits, and attend to the watering. *Strawberries*.—These, too, force best at this season with a bottom heat. A temperature of 45° to 50° by night, and 60° by day will be sufficient for them until after the fruit is set. They will require careful attention in watering until they make new foliage, when they will require it plentifully. They should have plenty of air whilst in flower.

VEGETABLES.

Asparagus, *Sea-kale*, and *Rhubarb* are easily forced by taking up plenty of roots and putting them on a nice bottom heat. To keep up a succession some roots should be set to work every three or four weeks. *Potatoes*.—Plant Early Handsomeworth, which is the earliest sort in cultivation. *Kidney Beans*.—Sow for succession. *Mustard and Cress*.—Sow once a fortnight. *Tarragon and Mint*.—Put a few roots into a bottom heat. *Cucumbers*.—Sow. Give them a good bottom heat, and keep them near the glass.

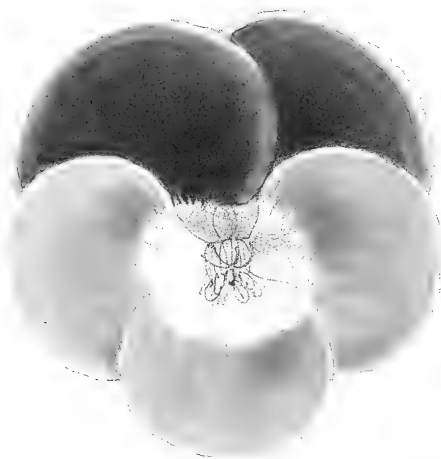
HARDY FRUIT.

Look carefully over the store of Pears and Apples in the fruit-room, and pick out any that are decaying. In mild weather fruit trees of all kinds may be planted, and where intended to be done it is better to do it now than put it off till spring. When planted they should have a good dressing of rotten dung around the roots, and standard trees liable to be blown about by the wind should be secured to stakes. Push forward the pruning of all kinds of fruit trees. Take advantage of mild weather to prune and nail wall trees. *Standard Pears and Apples* may be pruned any time when the weather is not too severe, as may also Gooseberry and Currant bushes.

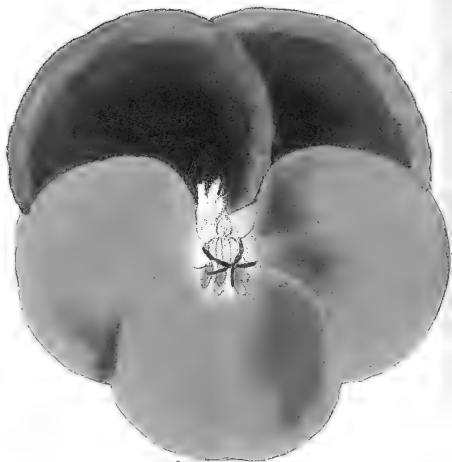
KITCHEN GARDEN.

Everything that can possibly be done now should be pushed on, as a busy time will soon be at hand. This is an excellent time for trenching all ground that requires it. In frosty weather wheel dung on ground where it will be wanted. Pea-rows and stakes of every kind should now be got and prepared for use. Look over the netting, also all material for protecting wall trees, and endeavour to have everything ready for immediate use when required. Attend to Cauliflowers under glasses; also to plants in frames. Protect anything that may require it. In mild weather make a sowing of early Peas and Broad Beans on a warm border. Towards the end of the month sow some Radishes on a warm border.—M. S.

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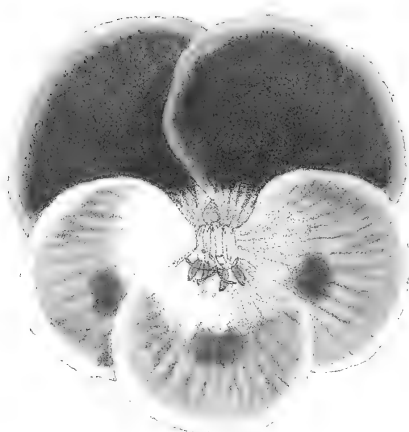
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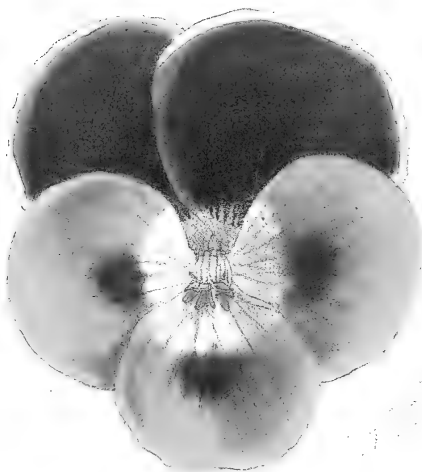
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Pelargoniums.

1. *Regina Formosa*. — 2. *Competitor*. — 3. *Royal Albert*.
4. *Belle of the Ball*. — 5. *Royalty*.

NEW PELARGONIUMS.

WITH AN ILLUSTRATION.

THE accompanying plate represents some of the more desirable novelties amongst Pelargoniums which appeared in the course of the last season, and which owe their origin to the well-known names of Hoyle, and Beck, and of the late Mr. Foster. We believe the plants are all in the hands of Mr. Turner, to whom, as well as to the respective raisers and growers, we owe our obligations for the blooms we have figured.

The season of 1862 was a remarkable one as regards the exhibition of seedling Pelargoniums. Their name was legion; and amongst the many which appeared there were few that would not take a fair position amongst the older standard varieties. Those we have selected as specially worthy of illustration are:—

Fig. 1. Regina formosa, one of the most perfect of the rose-coloured series; raised by Mr. Beck.

Fig. 2. Conflagration (misnamed Competitor on the plate), a fine crimson red; raised by Mr. Foster.

Fig. 3. Royal Albert, a noble carmine rose of large size; from Mr. Hoyle.

Fig. 4. Belle of the Ball, a subspotted rose, very prettily marked, and usually rather larger than in the sample figured; raised by Mr. Foster.

Fig. 5. Royalty, a very distinct rosy carmine, first-class every way; from Mr. Foster.

The groups which have been most largely augmented are those with rose-coloured and those with crimson flowers. Of the first set, the two we have figured—namely, Prince Albert and Regina formosa, stand first in merit. Royal Albert is one of the largest varieties known, fine in shape, and of a clear carmine rose below, clouded with dark maroon above, and white at the centre. Regina formosa, though full-sized, is smaller, and differs in having the upper petals almost wholly black. Canopus, raised by Mr. Beck, is a flower of well-marked character in this group, and is distinguished by the smaller size of the black spot on its upper petals. Cynosure and International, the former one of Mr. Beck's, the latter one of Mr. Foster's, are other good roses.

Amongst the crimsons, Conflagration, which we figure, is one of the darker of the series. Illuminator, from the same raiser (Mr. Foster), comes amongst the brightest, being of a brilliant carmine scarlet, with a clouded blotch almost black on the top petals. Of Mr. Beck's novelties, Vesuvius, classing with the brightest, with Ardens, Fervens, and Bellatrix are all good flowers; the three last somewhat rosy-tinted.

To the roses which verge towards purple each of the raisers already named has contributed. Mr. Hoyle's flower, Lord Palmerston, is probably the best; but the Fidelia of Mr. Beck, and Improvement of Mr. Foster, are welcome. The distinct tint of these varieties renders them very desirable, both in the exhibitions and in private collections.

Of rosy-tinted flowers partially spotted on the lower petals, Belle of the Ball, a light carmine with markings of crimson, and Royalty, of a more decided rose-tint, with deeper crimson markings, are two fine and distinct sorts. They were both raised by Mr. Foster, as also was Merrimac, a large flower of this set, with the lower petals very much veined.

Monitor, Landseer, and Caliban are well-marked and desirable sorts of the distinctly spotted series; the two first raised in Mr. Foster's garden, the last in that of Mr. Beck. The improvement made in this group in respect to form has been very great; while the diversity of colour and marking presented by

the varieties of which it is composed renders its members very desirable additions to our collections. Monitor is of a lighter, Landseer of a deeper carmine rose, and Caliban is a sort of blush lilac, very heavily marked with maroon.

Some very pretty light-coloured flowers have made their appearance, and we hope to see these and the whites receive still further accessions, as they are much wanted to impart variety to our collections. The best of them, Eurydice, from Mr. Beck, is not, we believe, to be let out this season; but Esperance, Ophelia, Nymph, and Oriana, all more or less resemble it in character—that is to say, they have blush or whitish lower petals, and very heavily-clouded, dark-coloured upper ones.

Among the decided whites with small feathered markings on the upper petals, Dobson's Queen of Whites is the best we have seen, and is a very handsome and chaste-looking flower.

As a smaller selection from these materials, all of which are good, and which by no means exhaust the supply of the season, we strongly recommend the following:—

Rose.—Prince Albert, Regina formosa,
Canopus.
Crimson.—Conflagration, Vesuvius.
Purple.—Lord Palmerston.

Spotted.—Monitor, Landseer.
Subspotted.—Belle of the Ball, Royalty.
Light.—Oriana.
White.—Queen of Whites.

NEW *versus* OLD GRAPES.

It will be remembered that during the exciting and interesting discussion that took place between Mr. Tillery, of Welbeck, and Mr. Thomson, of Dalkeith Park, in our pages last year upon the relative merits of old and new Grapes, Mr. Tillery advocated the superiority of the old against the new; and Mr. Thomson as stoutly maintained that the new were better than the old. These gentlemen might have gone on writing till now, and neither would have succeeded in convincing the other; while the public, who are really the parties having the greatest interest in the result, would have been none the wiser after all that had been written. To bring the subject into something like a tangible shape, Mr. Thomson, at page 70 of our last year's Volume, wrote thus:—"Now, if Mr. Tillery has no objection, and we are spared till the time, I will send newly-ripened Black Hamburgs to any of the January or February Meetings of the Fruit Committee of the Royal Horticultural Society, and he can send his best Black Grapes, for Hamburgs and Muscats could not well be compared in point of flavour, and let the Committee decide which are the best Grapes in point of flavour."

The trial came off on Wednesday, the 21st of January, when there was a strong muster of the Fruit Committee at Kensington. Mr. Thomson sent three fine bunches of *new* Black Hamburgs, which have been hanging ripe since Christmas-day; and Mr. Tillery sent a bunch of Black Hamburgs, one of Welbeck Tripoli (Frankenthal), and one of West's St. Peter's. After the Committee had examined the bunches separately, and decided that in appearance the new had the advantage of the old, they proceeded to judge of the real point at issue—viz., flavour. The West's St. Peter's was found inferior in flavour to the new Hamburgs, and the competition, therefore, rested between the latter, and Hamburgs, and Frankenthal. After a very careful comparison it was decided by a majority that the old was richer in flavour, and contained more sugar than the new. That being the opinion as regarded flavour alone, the Committee, desirous of informing the public on the question

as to the general merits of new as against old Grapes, decided by a majority that for general appearance and utility the new were superior to the old. From this we may infer that the difference in flavour was so slight that the other qualifications preponderated over it.

Besides those exhibited by Mr. Thomson there was a small box of very beautiful new Hamburgs exhibited by Mr. McKenzie, of Kemp Town, Brighton. They were not quite so large in the berries as Mr. Thomson's, but were as black as jet, and covered with a fine thick bloom. The flavour was rich, excellent, and by some considered, as a whole, superior to Mr. Thomson's, but the highly-coloured ones of Mr. Thomson's bunches were equally as richly flavoured as they were.

THE NEW DAHLIAS, AND HOW TO EXHIBIT THEM.

At the request of many parties, I give you my opinion of the Dahlias which came out last season, and some of those varieties which I presume will make their appearance this year.

Last year the bulk of the flowers were pretty good. There was, however, one or two of very startling quality. The best flower was Lord Derby, and that flower, when bloomed in style, will not easily be beaten. I consider this the best self Dahlia I have ever seen. What renders this flower the more remarkable is, that it was raised by our old friend Glenney, who sold it to Mr. Pope out of the seedling-bed. There is a white of very first-rate quality in Miss Henshaw, and a dark variety in Donald Beaton: these, with Lady Elcho, Delicata, and Bob Ridley, comprise the six best flowers of the year. The next best six flowers are Goldfinder, Empress of India, Cygnet, Imperial, General Jackson, and Model. There are six others which, although second-class, will be useful for a season or two—namely, Black Prince, Countess Portsmouth, John Warren, Mrs. Bush, Capt. Harvey, and Handforth Hero.

Fancy flowers are very few in number, Mrs. Crisp and Reliance are the only two that will stand the test. There has been a great deal said about amalgamating the Fancy flowers with what are termed the show varieties. Now, I think the best division would be, the best twenty-four self varieties, and the best twenty-four striped, tipped, edged, or shaded: this would make two distinct classes, and prove very attractive. I have no doubt if the great shows would adopt this as a rule, both for nurserymen and amateurs, making for amateurs twelve blooms in each class instead of twenty-four, it would answer every purpose. I am quite ready myself to bow to any decision committees may come to. All I want is fair play and no favour. While I am on this matter I think it very desirable that at all the great shows the manager should provide show-boards to be placed according to his discretion. This would lead to much uniformity, and take away much jealousy, not allowing any names (until after the award) to be placed on the stands.

Every exhibitor would be willing to pay annually for the use of these stands; and when entries are made the amount should be forwarded. There are so many parties now-a-days who enter in all classes, and when it comes to the point only show in half. Now, if every exhibitor for such flowers had to pay a small moiety for the use of the stand, much of this would be avoided.

These boards would apply to Verbenas, Hollyhocks, Asters, Chrysanthemums—in fact, nearly every cut flower except Roses, and would certainly tend to much greater attraction in the great exhibitions. The expense of these boards would be very trifling, and would please nearly every exhibitor, as it would avoid his being obliged to bring to the show two boards with him.

I am sure this measure deserves the consideration of the Royal Horticultural Society, the Royal Botanic, and the Crystal Palace Company. Nothing but numbers should ever be allowed in future in any class for competition. Last year at the Crystal Palace one of the Judges deliberately went to the stands he had to judge, and *first* looked to whom the stands belonged before he attempted to look at the flowers. This I decidedly object to; and in all my own judging, now for forty years, I never did such a thing, and always objected to my brother judges doing it. Had I not seen this with my own eyes, I would not be so positive; but when only a few chairs, as rails, divide the Judge from the exhibition, he cannot help seeing that which spoiled his appetite for the day. Nothing but *boards* all alike, and *numbers* without names can obviate this injustice.

I now come to a very delicate matter how to describe—the new Dahlias for 1863. How can I speak of my own without egotism, or my neighbours without jealousy? I think if I name a few show flowers without description, leaving time to develop them, will be the best way I can manage. Certain it is that never were there so few; but still there are a few gems, both Fancies and show flowers. I place them according to my own idea of merit:—

Charles Turner (Keynes).
Caractacus (Turner).
Count Cavour (Edwards).
Serenity (Rawlings).
Lord Wiltshire (Dodds).
Mrs. Hogg (Rawlings).

Lord Dundreary (Turner).
Lord Russell (Silver).
Princess Alice (Edwards).
Bellona (Harrison).
Charlotte Dorling (Turner).
Mrs. Hobbs (Hobbs).

These twelve are the cream of the show flowers for this season.

FANCY FLOWERS.

There are six, I think, very first-rate—namely,—

Patent (Keynes).
Countess Shelburn (Turner).
Mrs. Wickham (Rawlings).

The Bride (Rawlings).
Symmetry (Legge).
The Beau (Rawlings).

All these I am sure will give satisfaction to every buyer. There may be many more coming out that I have not seen, but the above are according to my own judgment. I hope next season will prove more prolific in good things. I bloomed 35,000 seedlings, and have hope of something good; and I trust many others who have taken the trouble to grow seedlings may be rewarded for their pains.

Salisbury.

JOHN KEYNES.

SMOOTH CAYENNE PINE.

I HAVE no intention of entering into a controversy with your intelligent correspondent "M. S.," but will take the liberty of stating the following facts as to the keeping properties of this Pine Apple:—

On the 15th of September I removed a few fruit from the fruiting Pine-pit and placed them in a cool shady vinery. Here they remained for three weeks, and were then removed to a cool seed-room and remained there till the 21st of October, when one fruit was sent to table which had all the appearance of keeping in a sound condition for another month. On the 23rd of October another fruit was cut weighing $7\frac{1}{2}$ lbs., and it cut up as sound and fresh as though it had ripened only a few days before. When removed from the pit they were quite ripe, and of a beautiful golden yellow. Some Queens that were removed to the same quarters, at the same time, got soft and spongy, and had to be sent to table some time before the Smooth Cayennes were cut.

The above is by no means an exceptional case with me, as I have cut fruit of this Pine in winter, and kept them six weeks in a cool room, and then sent them to my employers while resident at a distance from here, and there they were not always cut up when sent, but were invariably pronounced excellent. And only last month my employer, who is a good judge of fruit, said there was no Pine equal to the Smooth Cayenne; and such is my own opinion, particularly for winter supply. And I have never yet seen an instance of its decaying at the bottom before fully ripe at the top. The Prickly Cayenne and Black Prince I have frequently seen decay in that way. The latter variety, as well as Envilles and Providences, I consider not worth growing, and confine my collection to Smooth Cayennes, Queens, a few Prickly Cayennes, and what I have as the Brocklesby Seedling, which is the best-flavoured Pine I know, but it will scarcely keep a day after it is quite ripe. I have Hurst House Seedling in fruit for the first time, and some of the fruit are fourteen-pip deep, in 8-inch pots. If the flavour of Hurst House Seedling is at all good it will be a valuable Pine.

Archerfield.

D. THOMSON.

[We received on the 20th December last a fruit of this Smooth Cayenne Pine from Mr. Thomson, which was as sound and delicious as a summer Pine. It was 7 inches high and $17\frac{1}{2}$ inches in circumference, weighing $5\frac{3}{4}$ lbs.—Eds. F. & P.]

THE BEST PEAR GROWN—KEEPING LATE PEARS AND APPLES.

HAVING at present some Winter Nelis Pears from an east wall just fit for table, I am of opinion that this sort, take it for all in all, is one of the best grown in its season. The specimens mentioned above are not large, but they are covered with russet, and the flavour is most exquisite. From a south wall the Winter Nelis ripened here in November and from a west aspect in December, so that a succession has been kept up for three months of this most useful and high-flavoured kind.

I find the most satisfactory mode of keeping late Pears and Apples is to pack them in shallow boxes with dry, well-sifted bran. The boxes I use are 2 feet 6 inches long by 2 feet broad, and about 4 inches deep. When the fruit are packed the boxes are placed one above the other, and only a lid is wanted for the uppermost. In keeping fruit in air-tight jars or in sand a deal of time is taken up in examining them, but in shallow boxes it is soon done. The fruit being placed in single layers, they are soon looked over in the boxes, and if a few rot they do not taint the others, the bran drying-up the moisture. There is no danger in any well-regulated fruit-room of the bran getting heated or musty in the boxes so as to give a bad taste to the fruit. Last year I had Prince Albert Pears in good condition up to the middle of June, and the Léon le Clerc de Laval kept till the end of July in such boxes.

WILLIAM TILLERY.

RELATING TO ROSES, AND TO THE ROSE SEASON.

1. *The Rose Season.*—Though the weather has been dismal, the Roses here, on the whole, have done well. From January to July there was a succession of frosts, hurricanes, hail, and rain. From August to November the weather was favourable, and the season has ended well. As soon as the sun came out they began to amend; and, though there should be a severe winter, yet, as the plants have made new roots and the skins are hard, I hope deaths may be few.

2. *The General Character of the Roses of 1862.*—The Roses of 1862, with very rare exceptions, are good for growth and foliage. They, moreover, abound in clear, rich, and dark colours; and I doubt if any year has produced so many good, and, so far as I have tried them, so few bad ones: still we must have better H.P. white Roses. We are well off for yellows; we have gone ahead in dark varieties of late, and the new sorts are of good constitution. Duc de Cazes (good on both stocks, the best supply for Louis XIV.), Princesse Mathilde, and Prince Camille de Rohan will bear me out in this observation. Add the older Rose Maroc, and you have four that can be recommended to any one.

3. *Roses that had not bloomed when I sent my last communication, and which I can highly recommend.*

(1). *Madame Clemence* (properly *Florence*) *Joigneaux*, is a fine red Rose, lilaceous at the extremity of the petals. In the *Gardeners' Chronicle* I expressed a doubt of its being true to sort, but I have discovered it to be true. Two amateurs saw it in bloom, and pronounced it to be splendid. The growth, habit, and continuity of blooming are good.

(2). *Alphonse Damazin*.—This is a medium-sized, perfectly-formed, scarlet red Rose; but in the fall it is as dark and also like *Marie Portemer*. I have three plants of it, and all did alike. It is good for growth and foliage, and an abundant and continuous bloomer, both early and late. These attributes will keep it in the catalogues.

(3). *Archevêque de Paris*.—There is nothing new here more healthy or better for growth and foliage; it will not be large, but good in every other respect. Colour deep crimson purple, thick and smooth petals, good formation, and an abundant and free bloomer.

(4). *Madame C. Wood*.—This is a fine deep-petalled red Rose, good in its outer petals, but the centre has not filled well; it is a fine variety, and might go in the class of *Anna de Diesbach*. It is a good grower and abundant bloomer. *Madame Clemence Joigneaux* and *Madame C. Wood* are the only two that have helped me to prizes this year; they were both at Sherborne, and enabled me to run second to Mr. Keynes for the Twenty-four Open, and to win the first prize for Amateurs. They were both at Blandford, and enabled me to win both the prizes. I may here say that the weather has been so wet that it would have been folly to travel them to shows, to which else I should have gone.

(5). *Richard Smith*.—This is fine as to colour—red purple, of excellent growth and foliage; but it is, and always will be, *presque pleine*. It will be valuable as a late dark bloomer, but the Archbishop in the same line will be better.

(6). *Madame Ernest Dréole* and *Jean Baptiste Guillot* have made good firm wood for another year; but they have made no other sign. Sometimes this is the best thing a "novelty" can do. If the four first of these be added to the ten mentioned in my last article, I am sure that the purchaser cannot be hurt, and further, that he will be pleased. No. 5 is good, subject to "*presque pleine*."

4. *Hearsay*.—Mr. Taylor, of Fencote, Bedale, Yorkshire, speaks in very high terms of the following:—

(1). *Wilhelm Pfitzer*.—Dark red and scarlet, very full and finely formed, a good grower and good foliage. I feel certain another season it will be A1.

(2). *Turenne* and *Vicomte Vigier*.—I cannot find his letter to give his exact words; but I remember he spoke of them as good in every respect, and marked both A1. I have not the first, but the plants of these two are excellent. The following are also admirable as plants, just come (*all presents*): *Vulcain*, *La Brillante*, *Maréchal Vaillant*, *Simon St. Jean*, three *John Hoppers*, wonderful for growth on the *Briar*, *Manetti*, and own roots (I never saw

"own roots" so good), Olivier Delhomme. These await trial, and are capital growers. Let us hope that a good time is coming. The robins, however, began their "querela" this year in July, which portends an early and severe winter. Their usual time is September or October.

5. *Roses of 1863*.—I have only heard of five, which will be brought out by M. E. Verdier. The four first are by Fontaine, and the last by Grainger. I get the information from M. E. Verdier by my trusty friend M. F. Gloede, who gives Verdier the highest character for judgment and integrity. He was right about Madame Furtado (sister of Louis Fould) last year.

The *Roses* by Fontaine are Emerald, Le Tour de Cressy, Murillo, and M. Brianson. This last is to be *the* A1, a Rose of "high order of merit." Murillo is a constant and free bloomer. Le Juif Errant (Grainger), is to be very dark. John Bull likes a wandering Jew: England cannot go on without a Jew. Without calumny against "Le Juif Errant," England cannot go on without a fresh humbug every year!

In conclusion, buy some *Roses*; and when you are ill they will compel you to say—

"They cheer me, solace me,
And mitigate my pain;
Bow to me, nod to me,
And wish me well again!"

Rushton.

W. F. RADCLYFFE.

SUGGESTIONS FOR FUCHSIA-EXHIBITORS, 1863.

In an early Number of the *FLORIST AND POMOLOGIST*, 1862, I ventured to make a few observations on the aged and unsightly specimens of the *Fuchsias* which were usually sent for competition at our great exhibitions. I therein suggested the advantage of youth and vigour over exhausted yet venerable old age. Most truly gratified was I to find that at the fêtes held last year, both at the Botanic and South Kensington Gardens, others were of the same opinion, which was well exemplified by the well-grown specimens exhibited by Mr. W. Cannel, gardener to G. Jennings, Esq., Oak Lodge, Clapham. The superiority of these young and well-trained plants was evident to every critical eye; and, as they duly deserved, they received the highest award. Hoping to see many exhibitors following this good example, I venture to remind amateurs and others that the season has arrived for commencing the training of specimens, and that no time should be lost in securing cuttings or recently-struck plants for this purpose. And let me here remind all those who intend to exhibit, that their specimens should not exceed 4 feet in height, and should be symmetrically grown in pots not over 10 inches in diameter.

I will here add a few names of the varieties which have been commended as some of the best. Among the white corollas, Princess of Prussia, Fascination, White Lady, and Reine Cornelissen (a double variety), are highly approved. In the purple or dark corolla class, Sir Robert Peel, Lord Elcho, Perseverance, Hermine, Edith, The Lord Warden, Black Prince, Criterion, King of the Purples, and Souvenir de Chiswick, will be found useful. Among the double dark corollas, Universal and Sir Colin Campbell will not be surpassed; the former variety, if well grown, is by far the best double *Fuchsia* in cultivation. Among the white-sepalled varieties, Wiltshire Lass, Fair Oriana, Fairest of the Fair, Annie, and Bridal Bouquet, are about the best. Many other good, and probably many newer varieties might be added; but experience has long taught me the truth of the old adage, "Taste and try before you buy." I therefore refrain from recommending the new *Fuchsias* which have not been before the public tribunal.

X.

WHO SHALL SELECT?

THERE seems to be such a demand for fruit trees of all kinds with the class to which I belong, that I am induced to ask you a question relating thereto. We know but little of what will exactly suit our walls, our espaliers, open quarters, or houses; and, when we apply to our neighbours the nurserymen, they appear all to recommend what probably they have most of, as a matter of business, whether such may suit us or not. We may, to be sure, write and ask the editors of the *Gardeners' Chronicle* or of the *Journal of Horticulture* to give us this information; but we feel this entails an obligation we are unwilling to incur, as our class is numerous, and our wants multifarious. Suppose, for instance, I wanted to know the twelve best Gooseberries, the twelve best Currants, and the twelve best Strawberries for my garden; and, not wishing to be under an obligation to any one, I am willing to pay for the information, just as I would a solicitor for a legal opinion. Where am I to get it? The advice would probably be worth 5s., 7s. 6d., or 10s. 6d. to me, as the case may be, and I am very agreeable to pay the fee. But is there any competent authority to whom I can apply, send my fee, and get honest advice in return? I wish Mr. Editor you would take up the matter for us, and see if you cannot establish some authority to give us what we ask for.

AMATEUR.

[Oh, that we had 3s. 4d. for every query answered, or 6s. 8d. for every letter we write on such subjects as our respected correspondent speaks of. We fear so long as editors are so yielding and indulgent as those of the *Journal of Horticulture* and *Gardeners' Chronicle* are, there is little prospect of success for any professional adviser on these subjects.—Eos. F. & P.]

GROSSE CALEBASSE PEAR.

WITH AN ILLUSTRATION.

SYNONYMES.—*Calebasse Carafon*; *Calebasse Monstre*; *Calebasse Royale*; *Calebasse Monstrueuse du Nord*; *Triomphe de Hasselt*; *Van Marum*.

FRUITS, like individuals, have not all the same merits; nor are they all adapted to the same uses. Some there are that are essentially useful, while there are others that are simply ornamental. As you select your guests for the dinner table, so is it necessary to select your fruits. The former need not be all philosophers, neither must they be all small-talkers; and the latter, while they contribute to the gastronomic character of the dessert, should also possess some prominent feature in the way of effect. The subject we have chosen for our present illustration is one having the latter qualification. Its enormous size would of itself recommend it as a fine subject for the dessert; but even in the point of flavour it is better than many Pears we have seen set down and eaten at more than one table.

The Grosse Calebasse is a seedling of Van Mons, and is mentioned in his Catalogue of 1823, in the "deuxième serie," named Van Marum. The name by which it is now generally known appears to have originated with Poiteau, in the "Annales de la Société d'Horticulture de Paris," xv., 374.

The fruit, as will be seen by our figure so admirably drawn by Mrs. Dix, is of the largest size and of the form of the Calebasse. The flesh is not fine-grained, and is crisp and juicy; sometimes it is half melting, as was the case with the specimen from which our figure was taken, very juicy and sweet, but without much aroma.

The tree is perfectly hardy, makes a good pyramid, and bears well.

The specimen from which our figure was taken was obligingly sent us by Mr. George Lee, of Clevedon, near Bristol.



Grosse Calebasse .

THE GRAPE CONTEST.

ROYAL HORTICULTURAL SOCIETY'S FRUIT COMMITTEE.

A SPECIAL Meeting of the Fruit Committee of the Royal Horticultural Society was held on Wednesday, the 21st ult., to decide the challenge offered by Mr. W. Thomson, of Dalkeith, through our pages, to Mr. Tillery, of Welbeck. Some discussion had taken place between these two eminent gardeners as to the relative merits of old and new Grapes, Mr. Thomson having succeeded in producing new Black Hamburgs on New Year's-day, and he held that new Grapes were preferable to old ones. Mr. Tillery advocated the merits of the old or hung Grapes against the new, and for some time a lively discussion was kept up, one or two other members of the upper stratum joining in the discussion. At length Mr. Thomson stated, at page 70 of our volume just completed, "If Mr. Tillery has no objection, and we are spared till the time, I will send newly-ripened Black Hamburgs to any of the January or February Meetings of the Fruit Committee of the Royal Horticultural Society, and he can send his best Black Grapes, for Hamburgs and Muscats could not well be compared in point of flavour, and let the Committee decide which are the best Grapes in point of flavour."

Accordingly, there being no regular meeting of the Fruit Committee in January, this special meeting was appointed, which was numerously attended both by members and visitors to witness the result of the contest. Mr. Thomson sent three beautiful bunches of new Black Hamburgs which were ripe on Christmas-day. The bunches were of good size, well set, wide-shouldered, and shortly ovate. The berries large, and some of them quite hampered; but, though quite black, the colour as a whole was not so intense and even as in the bunch sent to us last year. This, we are told, has arisen from the dark, dull, and gloomy weather they had in Scotland during the whole of the autumn, when the season was more unfavourable than any that has been experienced for some years. Nevertheless, the Grapes were so beautiful that the Committee decided first of all that *in appearance* they had the advantage over the bunches of Black Hamburg, of Black Tripoli, and of West's St. Peter's that were exhibited by Mr. Tillery. These, too, were as good of their kind as could be seen anywhere, but the shrivelled appearance which had begun to set in contrasted unfavourably with the plump fresh-looking new Hamburgs. Then came the question of all others, the most important in the decision—flavour; for it was on this point that the issue hung. After a very patient and very close comparison the decision was in favour of the *old* Black Hamburgs. Having begun to shrivel, and the juice being inspissated, the sugar was more concentrated than in the new. The question then arose as to the general merits of old and new in regard of appearance and general utility, and the decision was in favour of new Grapes. We confess to a leaning in that direction ourselves, for we think there cannot be a doubt but that fine, plump, and fresh Black Hamburgs, with their fresh, crisp, green stalks, are more attractive, pleasing to the eye, and much more sightly at table than Black Hamburgs that are shrivelled, and from which the rigidity of the bunch and berry stalks has disappeared. Even in point of flavour the difference is so slight that it has to yield to the other qualifications. Altogether the discussion was a very interesting one, and no doubt the public will duly appreciate the opportunity that Mr. Thomson and Mr. Tillery have given them of coming to a decision on the subject.

In addition to those exhibited by Mr. Thomson, there was a small box containing several bunches of new Black Hamburgs from Mr. McKenzie, of Kemp Town, Brighton. These, though not so large either in bunch or berry as Mr. Thomson's, were as black as jet and covered with a dense bloom; a finer "blae" we never saw. But the climate of Brighton is a very different one from that of Dalkeith, and the amount of light in the one place during the winter months is very much greater than in the other, and hence the difference in colour. The flavour of the two was, however, very close; the very black berries of Mr. Thomson's being equally rich in flavour with Mr. McKenzie's.

Three magnificent bunches of Muscat of Alexandria were exhibited by Mr. Tillyard, gardener to John Kelk, Esq., of Stanmore Priory. So large and so beautiful were they that the Committee unanimously awarded Mr. Tillyard a certificate of commendation for meritorious cultivation.

Mr. Tillery also sent a splendid bunch of Trebbiano and some nice bunches of Muscat of Alexandria shrivelled nearly to raisins, which were very rich and sugary in flavour.

Mr. F. W. Pack, gardener to G. H. Vernon, Esq., Grove Hall, East Retford, sent a fine bunch of Black Barbarossa; and Mr. James Fowler, gardener to the Earl of Harewood, sent some very nice specimens of the Charlesworth Tokay, from which it is clear that this variety, if at all different from Muscat of Alexandria, is only a slight variation from it.

Mr. John Cox, of Redleaf, exhibited dishes of a seedling Pear which he has found to be very useful, from its ripening in succession from the beginning of December till now.

Mr. Francis, of Hertford, exhibited a seedling Apple, which, however, did not possess any merit to recommend it.

THE USES OF AUSTRALIAN GUM TREES.

THE forests of Australia are chiefly composed of Gum trees, or, as they are botanically named, Eucalypti; and so universal is their distribution, that there is scarcely a locality where one or another of these kind of trees may not be found. There are many varieties of them, differing very remarkably in their outward appearance, and also in their structure and economical applications. The ordinary names by which some of them are popularly distinguished are sufficiently significant to lead to their identity by almost any observer, since they embrace some obvious character or peculiarity of the tree itself. The Red Gum is known by the colour of its wood, the Blue Gum by the singular bluish-green of its foliage, the Stringy Bark describes its own appearance, and the Iron Bark is admirably named from the thick and rugged bark, with deep longitudinal fissures, that are so strikingly developed in this species. Some other Gum trees, possessing characters less marked by any prominent feature, are distinguished with greater difficulty; and, as the terms which have been applied to them vary in different localities, they often lead to considerable misapprehension of the qualities and proper uses of the woods. The nature of Eucalyptine timbers is very various, since some are tough and fibrous, and others hard and dense, and capable of sustaining extraordinary weights. The Box, Red Gum, and Iron Bark are exceedingly valuable for their strength and durability; and, in consequence, have been largely applied to numerous industrial purposes, where these qualities are required. The Blue and White Gums, and the Stringy Bark are extensively used in the erection of buildings, for the construction of pier and bridges, and for ordinary fencing; and other varieties have their special application in the mechanical arts. In addition to these uses of our forest trees as timber, it is interesting to know that every portion of them is highly valuable for the direct or remote products they contain. The refuse of the trunk, which is rejected by the carpenter, is used as fuel; indeed, the Gum trees supply the greater portion of the fuel of the colony, and a charcoal which is particularly adapted to the manipulations of the gold-assayer. The barks of many trees abound with a powerful astringent principle, analogous to, and yet apparently differing from, tannin that is employed in the preparation of leather, and renders this article equal to any in the world. Others afford the material of a coarse fibre, which ingenuity may yet convert into the manufacture of matting, or even paper. From a very large number there is secreted a variety of Gum resins that seem admirably suited to numerous requirements in the useful arts. Decoctions of the woods and barks exhibit a prospect of their being made subservient as medicinal agents; yet it is deserving of remark how little attention appears to have been given by medical men to their uses. It is not improbable that some species may yield us dyes, but there is little reliable information to be obtained upon this subject. The leaves on ordinary distillation give out a highly fragrant and abundant essential oil which has powerful solvent properties over the most tenacious resins, and promises to be advantageous in the preparation of excellent varnishes. From materials of indigenous production can be furnished a variety of these compositions, ranging from the richest transparent rose colour to almost perfect whiteness, and affording a hard varnish for the use of coachmakers and other artisans that will probably succeed the importation of the high-priced articles of this nature from Europe. The oil derived from Gum leaves is also adapted for general household consumption, as the material of a brilliant light, burning in an ordinary kerosene lamp with a whiteness and illuminating power far superior to the best American kerosene. It possesses no dangerous explosive properties like naphtha. It is destitute of any offensive smell, but rather diffuses a pleasant aromatic odour throughout the apartment in which it is being consumed. The cost of production is very moderate; and, in fact, in the face of a war with America, there are millions of acres in the colony covered with this prolific oil-bearing vegetation, which, by a small expenditure of capital, will render Australia independent of other countries for one great means of artificial light. The destructive distillation of the wood and leaves is attended by other products yielding volatile spirits (wood naphtha), which is abundantly used in the arts, pyroligneous acid, tar and charcoal, and also a gaseous fluid that has been employed in country towns of the colony for the purposes of street-illumination.

When the commonest timber trees of Australia indicate these various uses and products, there is surely reason to hope that the practical tendencies of the age will lead to further investigations and developments of our indigenous vegetable resources, and the profitable investment of labour and capital. Only three years ago the timber imported into this colony represented the enormous amount of three-quarters of a million sterling, while the population was estimated at about a million souls. By the formation of railroads and increased facilities of communication with the interior by the improvement and extension of ordinary roads, the products of our gigantic forests may be rendered available, extensive employment afforded to numerous classes of artisans in cutting and preparing the timber for use, and, at the same time, large tracts of country will be opened up to agricultural occupation and settlement; indeed, I hope it is already in realisation.

I hope this little narrative of the uses and capabilities of our Gum trees will not be unin-

teresting to our readers. As they are better studied, and more information acquired of their uses, they may serve for other purposes, of which I am at present in comparative ignorance. But if, in this one class of trees, there are so many useful indications, it is surely a legitimate conclusion that Victoria presents a wide field for the operations of industry and science, and abundant promise of the rich reward which is due to exertion and intelligence.

Kinnahaird.

ROBERT MURRAY, F.R.H.S.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 189, 1862.)

LITHOSPERMUM FRUTICOSUM.—Messrs. J. & C. Lee, Hammersmith: Second-class Certificate, April 22.—A dwarf suffruticoso perennial from the south of Europe, well adapted for summer rockwork. The leaves small, linear-lanceolate, hairy: the flowers bright blue, borne at the ends of the short twiggy branches.

LITOBROCHIA NOBILIS.—Messrs. Veitch & Son: Silver Banksian Medal, June 11.—A noble stove Fern of the *Doryopteris* group, and looking like a gigantic *Litobrochia palmata*. The fronds, many of them measuring a foot across the lamina, which was palmately bipinnatifid, were supported on black stipites.

LOMARIA GIBBA.—Messrs. Veitch & Son: Silver Knightian Medal, July 2.—A very graceful Australian Fern, producing a dense plummy head of light green fronds about a couple of feet in length, pinnatifid almost to the rachis into linear acute undulated segments, which are gibbously decurrent at the base. The fertile fronds have narrower segments more strongly decurrent on the rachis.

LOMATIA ELEGANTISSIMA.—Mr. Bull: Second-class Certificate, April 22.—A slender evergreen shrub from New Zealand, with very elegant finely-dissected leaves, ovate-triangular in outline, tripinnate, with small linear-acute sometimes trifid segments.

LONICERA BRACHYPODA, var. AUREO-RETICULATA.—Mr. Standish, Bagshot: Silver Knightian Medal, July 2.—A beautiful Japanese climber, having the ovate leaves of a lively green netted with golden yellow.

LUZULA SYLVATICA, var. AUREO-VITTATA.—Mr. Salter, Versailles Nursery, Hammersmith: Commended, April 1.—An elegant dwarf hardy herbaceous plant, with the loosely-spreading grassy leaves green, strongly marked with yellow bands or stripes.

MICROLEPIA SCABRA.—Mr. Standish: Second-class Certificate, May 6.—A distinct-looking Fern, adapted for baskets, having a creeping rhizome, and narrowish pinnato-pinnatifid hairy fronds, 1-2 feet long; the pinnæ lanceolate falcate, pinnatifidly lobed, and acutely auricled at the anterior base.

MUSA VITTATA.—Messrs. Veitch & Son: First-class Certificate, April 1; Messrs. Low & Co., Messrs. Jackson & Son, Messrs. Veitch & Son, Messrs. J. & C. Lee, and Mr. Bull: Silver Banksian Medal, May 21.—A fine new form of Plantain from the island of St. Thomas, in the Gulf of Guinea. The leaves variegated with greyish-green, and yellowish-white, irregularly disposed in bands or sections passing from the midrib towards the margin. A good-looking stove plant.

NEPENTHES DOMINIANA.—Messrs. Veitch & Son: First-class Certificate, June 11.—A cross between *N. Rafflesiana* and an unnamed sort. In the hybrid the pitchers are shortish, green, slightly blotched with red, and fringed with long cilia down the back.

NOLANA LANCEOLATA.—Messrs. Veitch & Son: Bronze Medal, June 11.—A rather showy annual plant, with long-stalked lanceolate greyish radicle-leaves and trailing branches bearing large pale blue Convolvulus-like flowers, the throat of which was white, marked with five greenish blotches.

OREOPANAX DACTYLIFOLIUM.—Mr. Bull: Bronze Medal, June 11.—A bold-looking shrub, with palmately-lobed leaves clothed with rusty pubescence.

OSMANTHUS ILICIFOLIUS FOL. VARIEGATUS.—Mr. Standish: Second-class Certificate, May 6.—A Holly-like shrub, with broad obovate leaves irregularly margined with creamy white, and set at the edge with coarse spiny teeth. It will probably be a useful hardy shrub.

OSMANTHUS ILICIFOLIUS VARIEGATUS AUREUS.—Mr. Standish: Bronze Medal, May 21.—A dwarf evergreen shrub, with flat spiny-edged leaves of a dark green colour very prettily margined in an irregular manner with paler or yellowish-green. This promises to be a very ornamental shrub.

OSMUNDA REGALIS var. CRISTATA.—Messrs. Osborn & Sons, Fulham: Silver Banksian Medal, June 11.—A handsomely-crested variety of the Royal Fern, having the tips of the pinnae and pinnules, as well of the inflorescence, dilated and crisped.

OURISIA COCCINEA.—Messrs. Veitch & Son: Silver Knightian Medal, May 31.—A dwarf hardy perennial from Chili. The leaves cordate, somewhat like those of a *Mitella*; and the

flowers tubular, two-lipped, scarlet, an inch and a half long, and streaked on the face of the limb with crimson.

OXALIS VALDIVIANA.—Messrs. Veitch & Son: Bronze Medal, June 11.—A free-flowering and showy, dwarfish, tufted plant, with numerous short branched stems, smooth trifoliate leaves, and bright yellow flowers.

PANSY (fancy) AUREA MARGINATA.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh: First-class Certificate, May 21.—A fancy variety of good form, pale yellow ground, banded with violet purple; the petals perfectly encircled with the ground colour.

PELARGONIUM ARDENS.—Mr. Wiggins, Islworth: First-class Certificate, June 11.—Rosy carmine, slightly spotted lower petals; a purplish throat; and dark maroon upper petals margined with carmine rose.

PELARGONIUM BELLATRIX.—Mr. Wiggins: First-class Certificate, June 11.—Clear carmine rose lower petals; a purplish throat; and maroon-clouded upper petals, the maroon somewhat dashed with crimson towards the outsides, and narrowly edged with carmine rose.

PELARGONIUM BELLE OF THE BALL.—Mr. Nye, Clewer Manor: First-class Certificate, May 21.—Scarlet marbled with carmine; the throat pure white; the upper petals very deep maroon, with a perfect margin of the same colour as the lower petals. Fine habit.

PELARGONIUM BUTTERFLY.—Mr. Wiggins: Second-class Certificate, June 11.—Spotted; the lower petals carmine rose with deep black-shaded spot; the upper ones very dark maroon.

PELARGONIUM CALIBAN.—Mr. Wiggins: Second-class Certificate, June 11.—Spotted; the lower petals pale blush lilac, with a dark maroon spot in the midst of a large veiny blotch of deep purplish-crimson; the upper petals with a clouded maroon spot, becoming purplish-crimson towards the edges, and margined by the blush lilac ground colour.

PELARGONIUM CANOPUS.—Mr. Wiggins: First-class Certificate, June 11.—Carmine rose lower petals; distinct white throat; the upper petals of a carmine rose slightly dashed with crimson, and marked with a small black spot.

PELARGONIUM CENSOR.—Mr. Nye: Second-class Certificate, June 11.—Bright rose; the upper petals of a darker shade of the same, with a dark spot and good edge.

PELARGONIUM COLOSSUS.—G. W. Hoyle, Esq., Reading: First-class Certificate, June 11.—Salmon rose with dark blotch; the upper ones maroon, distinctly edged with rose; the throat pure white.

PELARGONIUM CONFLAGRATION.—Mr. Nye: First-class Certificate, May 21.—Subdued deep rose colour, with dark spot on the upper petals.

PELARGONIUM CYNOSURE.—Mr. Wiggins: Second-class Certificate, June 11.—Clear carmine rose; the throat white; the upper petals with a small maroon spot bordered by clouded crimson, the extreme edge being carmine rose.

PELARGONIUM ESPERANCE.—Mr. Wiggins: Second-class Certificate, June 11.—Blush white; the upper petals crimson maroon, with a narrow blush white edge.

PELARGONIUM EURYDICE.—Mr. Wiggins: First-class Certificate, June 11.—Pure pearly white; and the upper petals deep sanguineous crimson, with white margin. A most desirable variety.

PELARGONIUM ILLUMINATOR.—Mr. Nye: First-class Certificate, June 11.—Bright orange scarlet, faintly spotted on the lower petals; the upper ones rich dark maroon with an orange scarlet margin.

PELARGONIUM IMPROVEMENT.—Mr. Nye: First-class Certificate, May 21.—Rosy marbled with crimson; the upper petals dark, clearly and finely margined with bright rose; the throat white.

PELARGONIUM INTERNATIONAL.—Mr. Bull: Second-class Certificate, June 26.—Spotted, rose shaded with orange, and marked with uniform dark spots; the upper ones dark maroon bordered with orange scarlet.

PELARGONIUM LANDSEER.—Mr. Nye: Second-class Certificate, June 11.—A spotted rose, marbled with scarlet; the upper, maroon with a roughly-defined edge.

PELARGONIUM LORD PALMERSTON.—G. W. Hoyle, Esq.: First-class Certificate, June 11.—Purple rose, with a shaded throat, and dark maroon upper petals margined with rosy purple. It was considered an improvement in its class.

PELARGONIUM MERRIMAC.—Mr. Nye: First-class Certificate, June 11.—Deep rose, strongly veined on the lower petals; throat white, the upper petals dark shaded maroon, edged with rose.

PELARGONIUM MONITOR.—Mr. Nye: Second-class Certificate, June 11.—Spotted deep rose with dark spot; the upper petals dark maroon irregularly edged.

PELARGONIUM NYMPH.—Mr. Wiggins: Second-class Certificate, June 11.—Blush; the upper petals marked with a dark maroon cloud.

PELARGONIUM ORIANA.—Mr. Wiggins: First-class Certificate, June 11.—Pinkish-blush, paler at the base; the upper petals with a clouded maroon spot, which passes into orange red, and is unequally edged with delicate pinkish-rose. Considered to be first-rate of its class.

PELARGONIUM REGINA FORMOSA.—Mr. Wiggins: First-class Certificate, June 11.—A

very beautiful variety, remarkably attractive from its fine form. Carmine rose slightly veined, and with a slightly darker spot near the white throat; the upper dark maroon passing off to crimson towards the edge, and narrowly bordered with the carmine rose ground colour.

PELARGONIUM ROYAL ALBERT.—G. W. Hoyle, Esq.: First-class Certificate, May 21.—Rosy carmine, deeply shaded towards the centre; the upper petals deeper-coloured, with a brilliant edge; the throat pure white. A magnificent flower.

PELARGONIUM ROYALTY.—Mr. Nye: First-class Certificate, June 11.—Bright rose faintly spotted; the throat white, and the upper petals very dark maroon, margined with bright rose. A very telling flower.

PELARGONIUM THEOPHRASTE.—Mr. Bull: Commended, June 26.—An imported French or Diadematum variety, with large and well-formed lively-looking flowers, bright carmine, with a lightish centre. A fine decorative sort.

PELARGONIUM VICEROY OF EGYPT.—Mr. Bull: Second-class Certificate, June 26.—Spotted, rich rosy carmine, marked with even dark spots; the upper petals dark maroon with light margins.

PELARGONIUM (fancy) MISS-IN-HER-TEENS.—Mr. Turner, Slough: Second-class Certificate, June 11.—Somewhat novel; the lower petals faintly spotted and veined, and the upper ones a dark scarlet-lake colour.

PELARGONIUM (zonale) CONQUEROR OF EUROPE.—Mr. Williams, Holloway: First-class Certificate, May 21.—A fine rosy salmon, of perfect shape, and flowering with a good truss; the leaves finely zonate.

PELARGONIUM (zonale) NESFIELD.—Mr. Turner: Second-class Certificate, May 21.—A free bloomer, with small zonate foliage; brilliant scarlet.

PELARGONIUM (scarlet) WALTHAM PET.—Mr. William Paul, Waltham Cross: First-class Certificate, May 21.—Remarkably dwarf and compact, with small foliage and erect flower-stalks. The flowers small but of excellent form, brilliant orange scarlet, with a conspicuous white eye.

PETUNIA (inimitabilis) ELIZA MATHIEU.—Mr. G. Smith, Hornsey: First-class Certificate, May 21.—The finest Petunia in cultivation. The flowers very large, even, and double, of a light purple freely blotched and edged with white.

PETUNIA EMMA.—Mr. Bull: Second-class Certificate, May 21.—A rosy purple of good form, with dark throat and deeply veined. An acquisition to the class.

(To be continued.)

THE ALICANTE GRAPE

Is an old variety, but recently called the Kempsey Alicante. I have here an established Vine of it, which I brought to this place, having a great favour for it. It is upwards of twenty-five years since I showed it at the Edinburgh Horticultural Society's competition. It was then greatly admired and extolled for its handsome shape, a long bunch tapering to a berry, quite a sugar-loaf shape. It is very similar to the Canon Hall in appearance of the large noble berries, in shape and symmetry, only the berries are a little more elongated, and of a dark purplish colour; the flavour is good, and the bunch hangs well.

The Alicante for a Black, and the Canon Hall for a light Grape. I consider these two of the most noble-looking Grapes yet extant. Both varieties, however, have a great detriment inherent to their natural constitution—that is, they are very bad setters. On that account they are not generally grown, although many who have attempted to grow them have eventually discarded them from their collections.

But, now, as there is quite a mania for new and ennobled varieties of Grapes, to gain these ends we must exert every available means, as I feel, from previous and varied experiments tried with the Alicante, every confidence in saying that the difficulty of setting it has been experienced by every one. I tried impregnating it with the pollen of free setters. I watched to see the result, but I could not discern any between the impregnated and unimpregnated. The whole secret or cause arises from the summit of the pistil of every individual flower being invariably covered with a sort of nectar or honeydew: this dewdrop keeps or shuts out the pollen from entering to take effect for fecundation. To avoid this I gently, with a very soft camel's-hair brush, or carefully with both hands, strip down the individual bunches when coming into bloom till I see all the dewdrops are off; then the pollen gets admission. This I do every morning between nine and ten o'clock, and again about three o'clock in the afternoon for several days till they are all set. I have frequently striped my hands down other free-setting sorts when in full bloom, the pollen adhering to the hands; then striped down the Alicante bunches. This, however, is more effectual at the moment. But the chief reason is the dewdrops, which in a few hours again accumulate, to the deterioration of the free admission of the pollen to cause fructification.

Trusting those who may have tried to grow this Grape, and have not been so successful as they should have wished, may yet be tempted to give it a trial, for we have no equal to it in appearance for a Black Grape. The Canon Hall Muscat is its only companion as a White. The latter I seldom fail in having a good crop of, although a bad setter also.

Having several years ago given a public detail of my system of success in growing the Canon Hall, I do not mean at present to rehearse it unless requested.

Dalmeny Park.

WILLIAM MELVILLE.

THE PITCH PINE.

In your last Number one of your correspondents, "R. S." asks if any of your readers can say from what tree the timber imported from America under the name of Pitch Pine, and said according to authority to be the produce of *Pinus rigida*, is really obtained. He does not say why he doubts that it is the produce of *Pinus rigida*, but merely states that "on examination, it is more likely to be obtained from *Pinus Coulteri*, *ponderosa*, or *Benthamiana*." As all three come from the north-west coast of America, the length of the voyage round Cape Horn would, we should think, prevent competition in this article with the eastern coast; and, unless "R. S." gives you his reasons for his supposition, and explains the examination on which it professes to be founded, we are afraid *Pinus rigida* must still stand father to the Pitch Pine. Allow me also to correct his statement that "*Pinus Coulteri* is not hardy in Britain, while both *Benthamiana* and *ponderosa* are perfectly so." As they all three grow together in their native country, this would seem rather a surprising anomaly; but if he will take the trouble to pay a visit to the Royal Horticultural Society's garden at Chiswick, he will be reassured on the subject. He will there find a fine, large, perfectly-thriving example of *P. Coulteri* upwards of thirty years old.

Your correspondent does not seem to be aware that a Scottish Society is now sending out a collector to British Columbia chiefly for the purpose he recommends—of exploring it and introducing new trees and plants; nor that the chief objection taken to that expedition is, that so much has been done already by private enterprise and the different surveying expeditions, that little remains to reward his labours. Mr. Gordon would, undoubtedly, be a most competent person for such an expedition, but we should recommend "R. S." to accompany him for a different reason.

"R. S." is more sanguine about the trees on the banks of the Amoor, and on the Bokharan and Cashmerian mountains than we are. The reports we have read and received are probably less favourable than his.

His last suggestion that the Governor of the Cape should take in hand the importation of Tasmanian and Australian timber trees as a commercial speculation is novel! It may be valuable, but it sounds droll to begin with.

PINUS RIGIDA.

M. ROBERT'S SYSTEM.

In the December Number of the *FLORIST AND POMOLOGIST* a correspondent, "Phi," strongly condemns M. Robert's method of renovating old and decaying trees—viz., by decoration. He denies the efficacy of the proposed plan on physiological grounds; and, further, that the Frenchman's nostrum possesses not even the merit of originality. In the latter case your contributor is perfectly right, the proposed scheme or its most salient features being identical with that of Forsyth; but that it cannot be successful, or, at any rate, partially so, I respectfully demur to. I will, with your permission, state a case in point, and in which the operation was performed by my own hands. I am now an old gardener, but when I was young William Forsyth's receipt was better known and in better odour than at the present day. But, withal, it may be none the worse of being old. I was called on to see what could be done with a number of fruit trees—Peach, Pear, Plum, and Cherry; such wretched-looking objects, that most persons would be inclined to send them, without more ado, to the refuse-heap. There was not a branch on any one of them but was rotted and cankered to a fearful extent, the stems back and front in a similar state. They were ugly customers to deal with, and the advanced season (May), left it still more difficult. With the Peaches I determined to have nothing to do—M. Robert himself could not renovate them. The Cherries I decided to defer, but I took the Pears and Plums in hand outright. I had the branches all removed close to the stem, and then with an instrument which I had specially made for the occasion I commenced the removal of the bark: this was easily enough effected without materially injuring the liber or inner bark, and Forsyth's plaster was applied as quickly as the bark was removed.

You may believe the poor trees cut but a sorry figure after this operation. There they

stood little more than bare poles, very unlike anything from which a luscious crop of fruit would ever be gathered; but this did not last long. Soon they began to burst vigorously, shoots more than enough and to spare. Before the following November they had to get two nailings, and fine ripened shoots of from 4 to 5 feet sufficiently attested the renovation which had been effected. Now, I think this will show that there is much in M. Robert's plan worth attention. If the inner bark be not removed, and there is no reason why it should be, the physiological objections of "Phi" fall to the ground; and, even where it is removed by accident, any person of experience knows that a very short time suffices for its restoration—a short privation which assuredly will not cause the death of the patient. Without at all denying the efficacy of the remedies which your correspondent recommends, I would at the same time say, that our fathers managed many things in a manner which, perhaps, we rather hastily condemn. That the attack of insects are rather the consequences than the causes of disease in trees I fully agree with "Phi," but surely if they can only exist on diseased timber, or trees of diminished vital energy, anything calculated to restore this energy or vigour—as decortication I submit is—evidently tends to the prevention of such attacks. Any intelligent gardener knows that the remedy should not stop with merely stripping the bark; drainage, soil, and the other et-ceteras should be also attended to. But occasionally trees will be met with so far gone in disease as to defy ordinary remedies, and to these my remarks more especially refer.

P. CASTLES.

FRUIT-JUDGING AT KENSINGTON.

In the January Number of the *FLORIST AND POMOLOGIST*, page 6, Mr. Lumsden calls my attention to a paragraph in your correspondent's report of the "Great International Show of Fruits, &c.," on October the 8th, 9th, and 10th. Mr. Lumsden is quite right in doing so, as the statement to which he alludes is quite incorrect. If he will refer to the *Gardeners' Chronicle*, No. 42, page 982, to an article of mine, in which I there state that "the first prize in Class M was awarded to a collection in which two of the dishes contained eight fruits." Your reporter has misunderstood my observations on these collections, as the reference I have given will show. On the first day of the Exhibition I made some remarks on Mr. Lumsden's collection of three dishes of Pears, not that they were wrong in number, but that there were several of his fruits apparently unsound. One fruit of *Beurré Bosc* had a piece out of the side, and two fruit of *Gansel's Bergamot* had large black blotches or bruises, which imperfections, no doubt, were observable to others as well as myself.

Stoke Park.

A. BOUSIE, *Gardener to Lord Taunton.*

KEW GARDENS.

In looking over "J. McP.'s" notes of his visit to Kew Gardens, I find he has omitted to mention a *Begonia* (among the others), which I saw there on September 13. I refer to *Begonia The O'Donaghue*. It is a variety really worthy of being in any collection; it has the silvery belt of *Rex*, with a number of round silvery spots of the size of a small wafer; and from the size and roundness of the spots it looks extremely pretty.

I must also add a word in praise of the appearance of the *Cissus discolor* in the Victoria-house, and of the tasteful manner it is trained.

"J. McP." speaks of the well-grown specimens of *Fuchsias* there. I do not find fault with the growth; but if the gardeners have the ability to grow a *Fuchsia* well, why not exercise it on some really good sorts; for with the exception of *Fuchsia Comet* (a really fine flower), the sorts grown there were only very old varieties, the best being *Corallina*, now only used for out-of-door use.

The masses of *Perilla nankinensis* made a very rich show, being surrounded by beds of brighter colours. The manner in which the gardens are kept gives great credit to those in charge.

PROVINCIAL.

CALENDAR OF OPERATIONS.

CONSERVATORY.

This house should now be very gay. Fortunately this can be easily done from the great number of plants, which, with ordinary means and the exercise of a little forethought, can be had in flower at this

season. The forcing-pit will furnish *Rhododendrons*, *Kalmias*, and other American plants and bulbs of different kinds. Remove all plants as soon as they begin to look the least faded or unsightly. Introduce fresh flowers daily. Attend well to the watering.

Ventilate freely when the weather permits. There has been no necessity for a great deal of fire heat up to the present time, owing to the mild weather. The temperature at night in mild weather might range from 45° to 50°, but in severe frost it will be better to keep it between 40° and 45°. Keep everything as clean as possible.

GREENHOUSES.

HARDWOODED PLANTS.—If after the mild weather we now have severe frost should set in, do not begin potting until the end of the month or the beginning of the next. Get everything in readiness. Peat and loam will be required in considerable quantities. Have a quantity of crocks broken into different sizes for drainage; have also labels and stakes sufficient prepared. Plants that are beginning to grow should be potted first. Keep them closer after they are potted. Use just sufficient fire heat to keep out the frost. Ventilate freely in fine weather; but be careful to guard against cold cutting winds. Attend carefully to the watering. **SOFTWOODED PLANTS.**—*Pelargoniums.*—Plants for late blooming should be potted as soon as possible. All the early and forward plants should be kept rather warmer as the season advances. Attend well to the watering, also to the tying-out of the plants. Give air freely on fine days, especially in the forenoons, always closing-up early in the afternoon. *Cinerarias.*—Pick off dead leaves and attend to the tying-out of the plants. Give plenty of air, and keep them near the glass. Remove a few of the most forward into a warm house to flower early. *Calceolarias.*—Shift into pots to flower in. Keep dead leaves picked off, and peg down shoots. *Fuchsias.*—Prune old plants and start in heat. When they have broken, shake all the old soil from the roots, and pot in small-sized pots, and plunge in a gentle bottom heat. They will soon make fresh roots, and before the pots get too full they should be shifted into larger pots, using a rich compost. Syringe the plants daily, and when they have plenty of roots water freely. The present is a good time to put in cuttings, which will soon strike, and with proper management will make fine plants for autumn blooming.

STOVE.

Prune and pot *Allamandas*, *Clerodendrons*, *Dipladenias*, and plants of like habit. Remove some of the old soil from the balls, and pot in nice rich compost. Plunge in a bottom heat; keep them close. Syringe daily. They will not require much water until they begin to root freely into the fresh soil. *Begonias*, *Justicias*, and similar plants done flowering should be cut back. Keep a night temperature of 60°, and 76° to 75° during the day. Give a little air in forenoons of fine days; but be careful to shut-up early. Attend carefully to the watering. Start a few *Gloxinias* and *Caladiums*, and pot a few *Achimenes* and *Gesneras* for early flowering.

FLOWER GARDEN.

In mild weather plant *Anemones* and *Ranunculuses* in rich soil. Tulips and Hyacinths, protect from severe weather. In favourable weather plant perennials and dig borders. Edgings of every kind, plant in open mild weather. Plant *Roses* in good strong soil, well enriched with manure. Get alterations of all kinds completed as soon as possible. *Pleasure Ground.*—Another mild winter has been favourable to trees and shrubs recovering the effects of the frost of December, 1860. In open fine weather plant trees and shrubs; lay turf, fresh-gravel walk, and forward alterations.

FORCING.

FRUIT.—*Fine Apples.*—Give plants that are swelling-off their fruit liberal supplies of water, and maintain a moist warm atmosphere. When the plants are showing fruit and coming into flower, a rather dry atmosphere should be kept; but the plants should be well watered when they require it. Maintain a temperature of about 65° at night, and 75° to 80° during the day. Ventilate freely in mild weather.

Get soil, pots, &c., in readiness for shifting the succession plants next month. *Vines.*—If the bunches are all thinned and the shoots properly tied down in the early-house, the chief matters requiring attention are keeping up a proper temperature, ventilating and watering the inside borders. Give air freely in the forenoons if the weather be fine, and always close up early in the afternoon. For *Black Hamburghs* a temperature of 60° in severe weather will be high enough during the night, and in very mild weather 65°. Attend to the thinning and tying-down of the shoots in succession-houses; see there is a nice warmth in the outside borders. Start another house, following the directions given in last month's calendar. *Peaches* and *Nectarines.*—When the fruit is all set in the early-house, the trees should be syringed two or three times daily. Keep a rather moist atmosphere. Give air freely in fine weather; a night temperature of 55° to 60° will be quite high enough until the "stoneing" is over. The inside borders should now be well watered. In the succession-house carry out the direction given last month for the early-house. *Figs.*—These are very subject to red spider, which is difficult to keep under unless the trees are well syringed two or three times daily. They will now require a night temperature of 60°, and must be kept well watered. Stop the young shoots when they are about 6 inches long. *Cherries.*—If the weather be any way favourable, fresh air must be daily admitted. After the fruit is set, syringe the tree gently and water well at root, giving them some liquid manure occasionally. A night temperature of 50° will be high enough until they are stoned. *Strawberries.*—When sufficient fruit for a crop is set, pinch off all the other flowers and put the plants into a warmer house. Keep them near the glass and water them freely, giving them some liquid manure two or three times a week. Introduce a fresh batch of plants into heat once a fortnight for succession, and follow the directions given last month. *Melons.*—Sow a few *Scarlet Flesh* for early crop. Keep them near the glass, and give them a good bottom heat. When up, pot-off and plunge in a bottom heat. Give air in fine weather.

VEGETABLES.

Asparagus, *Sea-kale*, and *Rhubarb.*—Keep up a succession by making fresh beds and introducing fresh roots. *Kidney Beans.*—Earth-up the forward plants. Keep them near the glass, and water carefully. Sow for succession. *Potatoes.*—Plant *Early Handsworth* and *Ashleaved Kidney* on slight hot-beds. *Carrots* and *Radishes.*—Sow on slight hot-beds. *Cauliflowers* and *Lettuces.*—Sow in gentle heat for transplanting into frames, &c. *Cucumbers.*—Sow in light soil and plunge in a nice bottom heat. When up, pot-off into light soil, replunge in bottom heat, water carefully, and give air whenever the weather permits, in order to strengthen the plants.

HARDY FRUIT.

Endeavour to get the pruning and nailing of all kind of fruit trees completed as soon as possible. In open mild weather fruit trees of all kinds may be planted during this month, but the earlier it is done the better.

KITCHEN GARDEN.

Everything should now be in readiness for commencing active operations when the weather and the state of the soil suit. Make plantations of *Horse-radish*, *Jerusalem Artichokes*, *Rhubarb*, and *Sea-kale* when the land is in a fit condition; also of *Tarragons*, *Mint*, and other herbs. Plant *Garlic* and *Shallots*. Plant out autumn *Cabbages*. *Peas* and *Beans.*—Sow a good breadth of early kinds in sheltered situations, and see the mice do not eat them. Sow a few early *Horn Carrots* on a warm sheltered border; also a few *Radishes*, *Turnips*, and *Spinach*. Towards the end of the month sow some *Parsley*. *Potatoes.*—Plant *Early Handsworth* and *Ashleaved Kidney* in warm border. Plant *Box-edgings*, and turn and roll gravel walk.—M. S.

1



1, Lord Leigh — 2 Lord Craven.

NEW VERBENAS.

WITH AN ILLUSTRATION.

THE two Verbenas we now figure are the finest which appeared during the last year; and though their colours seem to have defied our artist in his efforts to represent their brilliancy, enough has been done to show that they are varieties of the first class, and that they are at the same time very handsome and attractive flowers.

That which is represented at *fig. 1* is called Lord Leigh. It was raised by Messrs. S. Perkins & Sons, of Park Nursery, Coventry, and was, as we learn, a seedling that came up in the open ground late in the season of 1861. Being late it did not bloom, but cuttings which were taken from it flowered early last year, and these produced the trusses which were shown at Kensington in June last, and which won for it a first-class certificate from the Floral Committee. It was justly regarded as a very fine and handsome variety, remarkable for the large size of its flowers, which were of excellent form, and of a crimson-scarlet colour, brightened by a clear yellow eye. The trusses exhibited were large and well filled. As shown during the season, in company with Foxhunter, it was, in our opinion, decidedly the better of the two.

The other variety, *fig. 2*, is named Lord Craven. It was produced by Messrs. Downie, Laird, & Laing, of Sydenham and Edinburgh; and as well as the former received a first-class certificate from the Floral Committee. It is decidedly the finest of the purples which has yet been obtained, corresponding in its large size and bold character with its companion, Lord Leigh. It was correctly described in the report of the Royal Horticultural Society's August Show as "a remarkably fine variety, producing bold well-filled trusses of large, flat, well-formed flowers an inch in diameter, and of a rich velvety puce-purple self colour."

M.

CONCERNING THE GLADIOLUS.

THIS flower is steadily, but surely, becoming a popular favourite. Not that our leading exhibitions have borne much testimony to this effect; but those in the trade who have ample means of noting the advance the flower is making, by measuring the demand created for it, assert that the sale has increased threefold during the winter. Some of the leading houses have sold out of the varieties most in request. This may be due, in part to the failure that last summer thinned the ranks of many growers. A rot that appeared with amazing suddenness pervaded many a group; and, in cases where a large and healthy-looking spike had well nigh developed itself, and the colour of the flowers was already appearing through the transparent green veil that surrounded the buds, on a sudden this was stricken worthless by some baleful but unseen and unknown agency. I saw large beds of Gladiolus devastated like that seen when the potato-rot attacks a breadth of this esculent; and, when what of the Gladiolus that appeared to be healthy bulbs had been staged for future planting, the rot would again appear and well nigh complete the work of entire extermination. I fancy that the wet and inclement spring told heavily on the bulbs of those who planted on stiff soils and ill-drained grounds, especially as early planting seems to be generally adopted. Notwithstanding this, there has also been a marked widening of the area of the cultivation of the Gladiolus. Growers are extending their collections, and new cultivators are bending their energies to the task of rearing—in fact, many of the continental houses have long since been completely drained of leading

varieties. It is evidenced also in another way. The present call for the *Ramosus* section, excepting perhaps *Queen Victoria* and *Ramosus* itself, and *Floribundus*—a reputed offspring from *Oppositifolius*—is of a very limited character; while even *Gandavensis* is scarcely in demand. The cheaper kinds of the *Gandavensis* section, such as *Bowiensis*, *Brenchleyensis*, *Monsieur Blouet*, *Fanny Rouget*, *Couranti fulgens*, *Triomphe d'Enghien*, *Madame Conder*, *Don Juan*, and others, command the sale the older kinds once had, and it is but the same law at work that is observed in every other class of flowers; it is the onward impetus that pervades the whole aspect of horticulture, the thing done by the ever-progressive worker being only the earnest of new forms of beauty to be evolved, new methods to be reduced to experience, new attainments to be reached after, and grasped.

The stocks of *Gladiolus* held by Vilmorin & Co., Loise, Verdier, and other continental houses at the commencement of the autumn months must be enormous, judging from the extent of some of the commissions entrusted to them by London houses alone, saying nothing of heavy transactions from the provinces. The sources from which the supply is drawn must be something startling, and this flower is a most important item in the bulb trade done between this country and France.

The beauty of the flower being of so varied a character, its peculiar adaptation as an exhibition agent, and the comparative ease with which it can be cultivated, all combine to intensify the popular favour now bestowed upon it; and, not satisfied with growing merely, some home-cultivators are busily and successfully engaged in the process of hybridisation. New varieties raised in England will soon outstrip in number those produced on the continent. Mr. Standish, of Bagshot, has made great headway in this direction, and succeeded in producing flowers of singular beauty and of exquisite form. Giant strides in the way of perfectibility of the *Gladiolus* have been made by this pioneer of English hybrids, whose just inheritance is the gratitude of appreciative admirers of one of his favourite flowers.

I have nothing new to suggest in the way of "cultural directions," an expression that has become a Covent Garden "household word." These rules abound in plenty, not all alike in their every detail, and yet not widely divergent. Rich light soil, compounded of leaf mould, turfy loam, well-rotted manure, and some sand, is the compost that seems best adapted to the requirements of the plant. Where it could be done, and especially in the case of continental bulbs that start into growth earlier than those harvested in England because ripened sooner, the bulbs should be potted-up in the month of February or March, according to the necessity of the case, into pots fully 6 inches in diameter; then be placed in a cold frame, or under a sheltered wall where they could be protected from heavy rain or frost, and in May be transplanted to their blooming quarters in the open ground—a well-prepared bed in some spot not too much exposed to the effects of rude winds. Should the potting-up be a matter of difficulty, plant the bulbs out of doors as early in the month of April as possible, but let the grower endeavour to provide himself with some agency to screen them from the effects of cold, wet, and inclement weather. I think this is *the* great thing to be avoided—the possibility of injury from continuous wet, either in the way of rain, or from an ill-drained situation. Water freely in dry and hot weather, as the spike gradually issues from its emerald chamber, and hastens to unfold its charming attire. Heavy gusts of wind that tear into fragments the flowers, and the excessive heat of

"The sun's director ray,"

that shortens the period of their "age of beauty," should be guarded against. Then endeavour to screen your flowers from the effects of each of these, if it

can be done, and thereby prolong the duration of the bloom, and with it the joy its presence imparts.

Remove the bulbs from the ground when the time of flowering is past before the rains of autumn penetrate to their quarters. Cut off the spike to within about 6 inches of the bulb, and with some soil attaching to the roots place them in some dry position where damp cannot affect them. I feel certain that during the months of repose they are better exposed to heat than to damp. Take care of the offshoots, and in the spring plant them in a bed by themselves till they shall have become large enough to produce a good spike of flowers.

If you have the means to grow a few *Gladiolus*, and have not as yet done so, I say, Try to do so. Many very handsome varieties are very cheap, and you secure at starting the nucleus of a collection that propagates itself. Additions can gradually be made. Year by year some new aspirant to popularity may be brought into contact with yourself for the first time; and I for one conceive it to be a pleasure of great value, and of high enjoyment, to watch daily the gradual development of one of these charming flowers, whose exquisite pencillings, or whose rich raiment of colour, shall salute you for the first time. Verily, there is something better here, and of a higher order of pleasure than those that pall upon the heart and deaden the tastes, because sought for from sources beneath the level of the satisfaction that is required.

Q. UO.

RELATING TO GRAPES.

WE are frequently hearing of new as well as old fruits and flowers from the hands of different cultivators. Perhaps a few remarks on some of the new, or not generally cultivated varieties, of Grapes may not be without interest to some of your readers. Full descriptions will be found in Hogg's "Fruit Manual." These remarks are from my own observations; the same kinds of Grapes might be superior in the hands of another grower. In the month of July, 1858, we replanted one of our vineries. I was anxious at the time to prove all the different varieties I could procure, as Grapes are the only fruit my employer eats; at the same time I wished to be on the safe side. We planted a Black Hamburgh to each rafter, and the intermediate spaces with new or little known varieties, in case of any kind not being satisfactory it could be removed without a blank, or could be grafted; the latter we have been obliged to do in several instances. For my own part I see no objection to Vines being planted 2 feet apart—that is, one up the rafter, and another up the centre of the light; it only requires the spurs to be kept a little further apart. These can be easily regulated at pruning time. The following is a list of kinds we have fruited the last three years:—

1. Muscat Hâtive de Saumur.—A very excellent White Grape, rich Muscat flavour, excellent for pot culture, and I have no doubt would ripen well on the open walls in the south of England. The earliest Grape I know.

2. Muscat Noir d'Angers, or Angers Frontignan.—A very fine Frontignan-flavoured Grape, but, like most of its class, apt to shank.

3. Golden Hamburgh.—I regret to say we cannot succeed with this; it fruits freely, and goes on satisfactorily till nearly ripe, when half the berries become discoloured and drop off, and the bunches become mere skeletons; while the Hamburghs on each side are all we could wish.

4. Trentham Black.—This is a Grape of first-rate flavour. The bunches require care in thinning, or will be loose; said to keep longer than Black

Hamburgh. This is a mistake—we never can keep it longer than the end of December. As a proof of its good qualities, the wasps will take it sooner than any other in the same house.

5. Marchioness of Hastings.—Bunch and berries large, a coarse Grape, indifferent flavour; bunches from 4 to 5 lbs. in weight.

6. Champion Hamburgh.—Very much resembles the Mill Hill Hamburgh, if not the same.

7. Bidwill's Seedling.—Bunches large, resembling Black Hamburgh in appearance, with a peculiar earthy flavour. Worthless.

8. Trebbiano.—A very excellent winter Grape, improved both in appearance and flavour grafted on the Hamburgh; bunches 4 to 5 lbs. weight. Hangs well.

9. Muscat Hamburgh (Snow's)—One of the best Muscat-flavoured Grapes we have: if not the best, a most delicious Grape.

10. Bowood Muscat.—I never have been able to distinguish the difference between this and the Muscat of Alexandria. My impression is there have been many Vines of the old Muscat sold for the Bowood. I have seen it distinct among my friends.

11. Buckland Sweetwater.—A very fine Grape with me, grafted on the Hamburgh. I have not fruited it on its own root. I find it fruits much more freely on the rod than spurred.

12. Charlesworth Tokay.—I believe the same as the Muscat of Alexandria.

13. Chasselas Napoléon, received from Messrs. Rollisson, very much resembles old Tokay in appearance, good flavour, but set indifferently grafted.

14. Burchardt's Prince. This is likely to be a valuable late Black Grape. We fruited it this season grafted on the Hamburgh; it proved very good, both in appearance and flavour.

15. Gromier du Cantal.—Bunches large, a pretty flame-coloured Grape, scarcely worth growing.

16. Lady Downe's Seedling.—This we find to be the best late Grape in every respect. The three bunches we exhibited at South Kensington last October were in bloom in April, when we had bunches still hanging of the previous year's crop, 1861, quite plump and fresh.

In addition to those mentioned above, we grow Frankenthal, Black Hamburgh, Old Tokay, West's St. Peter's, Barbarossa, Black Prince, and Muscat of Alexandria. If I were asked to make a selection from the kinds mentioned for a supply of Grapes all the year round, as we have them here, I should prefer the following:—*Black*.—Black Hamburgh, Frankenthal, Black Prince, West's St. Peter's, Lady Downe's Seedling, Burchardt's Prince. *White*.—Muscat of Alexandria, Buckland Sweetwater, Trebbiano, Muscat Hâtive de Saumer, and old Tokay; the latter is a very good Grape if allowed plenty of time to ripen. I have had it a fine colour in March, and very plump; and, when thoroughly ripe, its flavour is pretty good. There may be other Grapes quite as good, but I mention none but what I have fruited myself.

Keele Hall Gardens.

WM. HILL.

RANUNCULUSES, TWELVE BEST SORTS FOR EXHIBITION.

At the request of some amateur florists who are desirous of knowing more of the choicer kinds of Ranunculuses, and such as are in the esteem of the respective cultivators best adapted for showing, I issued to about twenty of the known cultivators of this flower, in various parts of England and Scotland,

a circular, asking them to make a return of twelve sorts which they esteemed most highly, and considered fit to place at an exhibition. The replies to these circulars were varied, and not devoid of interest. Eight gentlemen returned the lists of twelve sorts, and the colours, which are given at the foot of this letter. Among others, one had discontinued his old favourite of twenty-five years gone for newer and more modern claimants to his regard. One or two never grew any seedlings, and cultivated the old sorts from year to year until they exhausted them. Another doctored his collection with nostrums, and lost 80 per cent. of his once-valued collection. Yet, further, one gentleman from sheer modesty wrote of one or two names, but could not commit himself to twelve different sorts; and a tenth response was that he grew none under name, but all in mixtures. Most wrote of their affection for the flower, and in regretful strains that they could not satisfactorily reply to my solicitation.

Subjoined, however, are the returns, and they will be sufficient to excite interest in the flower; and to give an indication of the position certain varieties that are several times mentioned in the lists hold in the estimation of the gentlemen whose names are hereunto annexed. In reference to several cases, however, it may be stated that such as occur once only are seedlings of modern origin, and this fact will account for their not being returned in other lists.

Twelve sorts returned by Mr. W. Littleboy, Benson, Oxon.

Eva, gold, red edge.	Herald, white, crimson edge.
Marquis of Hereford, crimson.	Victor (Tyso's), dark purple.
Melancthon, white edge.	Commodore Napier, sulphur, red edge.
Sir W. Hoste, yellow, red edge.	Sir R. Sale, white, purple spot.
Naxara, nearly black.	Playfair, orange, mottled.
Eliza, sulphur.	Sophia, white, red edge.

Twelve by Mr. Calcott, Oxford.

Eliza.	Miss Forbes, white, red spot.
Temeraire, red and white stripe.	Naxara.
Sophia.	Delectus, yellow, red edge.
Apollo (Costar's), dark red.	Edgar, yellow, brown edge.
Apollo, crimson.	Cedo Nulli, orange.
Coronation, sulphur, mottled.	Sabina, pale yellow.

Twelve by Mr. John West, Shillingford, Oxon.

Rose Incomparable, white, rose edge.	Balcot.
Venus, white, purple edge.	Reine de Sheba, mottled.
Mustapha.	Eliza.
Delight (West's), yellow, red edge.	Delectus.
Pertinax, yellow spot.	Horatio, yellow, brown edge.
Marquis of Hereford.	Kilgour's Princess, white, mottled.

Eleven by Mr. John Waterston, Paisley.

Anne Hathaway, white, pink edge.	Humboldt, white, purple edge.
Beritola, white, rose edge.	Lord Gough, yellow, red edge.
Chevalier, white, purple edge.	Mackenzie, white, dark edge.
Camperdown, white, purple edge.	Mary Howitt, white, pink mottle.
Dr. Darwin, yellow, red mottle.	Jenny Meldrum, white, purple edge.
Ocano, cream, dark mottle.	

Twelve by Mr. Kirtland, Bletchington.

Eliza.	Coronation.
Sophia.	Brabancon, orange.
Horatio.	Quilla Filla, red mottle.
Tillet's Blush, rosy mottle.	Commodore Napier, yellow-edged.
Model of Perfection.	Naxara.
Henning, white, purple edge.	Apollo, crimson.

Twelve by Mr. Kearnshaw, Nottingham.

Naxara.	Plato, white.
Œil Noir, dark.	Le Temeraire, red and white stripe.
Orissa, striped.	Eliza.
Melange, red and yellow stripe.	Herald.
Rubro Magnificans, scarlet.	Larné, white, purple edge.
Viola La Vrai Noir, dark brown.	Commodore Napier, yellow-edged.

Mr. George Lightbody, Falkirk.

Miranda, white, rose edge.	Mrs. Trahar, white, rose edge.
Dr. Horner, white, purple edge.	Lord Berners, white, dark edge.
Talisman, white, purple edge.	Florimel, white, rose edge.
Prince Albert, dark edge.	Pelopidas, white, purple edge.
Sir P. Broke, cream, purple edge.	Princess Louisa, white, rose edge.
Goldfinder, yellow, red edge.	Chevalier, white, purple edge.

Twelve by Mr. C. Tyso, Wallingford, Berks.

Alexis, yellow, red spot.	Fairy, white, crimson spot.
Melanthion, cream, purple mottle.	Eupatoria, white, purple edge.
Festus, yellow, brown spot.	Eva, gold, red edge.
Naxara, very dark.	Delectus, yellow red edge.
Marquis of Hereford, crimson.	Liffey, white, purple edge.
California, yellow.	Indicator, yellow, brown spot.

Several other returns were imperfect in number or in colours.

CAREY TYSO.

GLADIOLUS AND CANNAS.

I QUITE agree with your correspondent, "W. R. S.," in the November Number of the *FLORIST AND POMOLOGIST* of the utility of the *Gladiolus* as a pot plant, not as a specimen of itself either with a number of bulbs in a large pot, or a single bulb in a 6-inch pot, which latter plan I think the most useful, as the small pot can then stand among others, with the flower-stem standing above the foliage of other plants. I planted four round beds this year with Cannas of sorts as an experiment, having but little faith in them in this very cold part of the country; but it was in a well-sheltered part of the garden, and, to insure the beds from entire failure, I planted *Gladiolus* bulbs of various sorts, or rather I should have said I planted the bulbs after thoroughly preparing the beds for the Cannas early in April, for I have not found the *Gladiolus* so fine grown in small pots as when planted out previous to commencing growth.

The Cannas were from seed sown in February; and although the plants were in a cold frame for two months before planting out, about the middle of June the continuous cold wet weather killed the shoots of several varieties to the ground; but during warm weather, at the end of the summer, they made plenty of fresh shoots, and although but few rose more than 2 feet 6 inches high, many of the shoots flowered, and the *Gladiolus* flower-stems set the fine foliage of the Cannas off to the best advantage.

I did not edge either of the beds with Ribbon Grass because it looks brown and rough early in the autumn, but used various of the Ornamental Grasses, of which I grew about thirty sorts in various parts of the garden, selecting those kinds for edging Canna-beds which kept a green healthy foliage until the end of the season.

The light-feathering foliage and flower-stems of the Grasses contrasted

well as an edging to the other plants, and were also useful to cut and mix with flowers in the flower-glasses through the summer, and to fill vases, &c., with Everlasting Flowers through the winter.

Teddesley Gardens, Stafford.

J. TAPLIN.

ON THE MISTLETOE.

THE Mistletoe is familiar to everybody at Christmas in the midland, southern, and eastern counties of England; but it is little known in the north or in Scotland. Some think that this parasite is named from the mistle thrush, instead of that early songster being named so from feeding on its viscid berries in winter. The name Mistletoe is derived from the Anglo-Saxon *Mistel*, birdlime, from *Mistel*, and *tan*, a twig. Formerly birdlime was made of its glutinous berries. My design, however, is neither to discuss the etymology of the name, nor the veneration of the Druids for the Mistletoe cut from the Oak, but rather to offer a few observations on its mode of growth, with a view to assist in the propagation of this singular production where it is not found growing wild.

The Mistletoe bears male and female flowers on separate plants, which accounts for some very large bushes of it never bearing berries. It is very abundant in some places upon the Thorn, Apple, Oak, Ash, and black Italian Poplar; but it is not found in other parts of the same locality. This is the case here: therefore I am indebted to a friend for much of the following:—He says, “I find as much of Mistletoe on the smooth as on the rough bark, both upon the upper and under sides of the branches; and some of the stems of Mistletoe are much larger than the branches on which it grows, while two or three old plants spring out of the rough bark on the main stems of the old Thorn bushes. Likewise some remarkably fine bushes of Mistletoe on the black Italian Poplar, growing out of the body of the tree about 40 feet high from the ground.” He adds, “If I find a Poplar branch bearing Mistletoe, I will cut it off by way of a cutting for you; but I am afraid the difficulty will be to get handsome standards of Mistletoe, because it seems necessary that the mother plants must be kept growing beyond it; for I observe where a branch is broken off by accident the parasite withers and dies away.” This fact shows the true character of a parasite. This one, however, may be said to be harmless, except where it too much abounds in orchards; and the way of its extension differs from that of other parasites, whose seeds germinate in the ground before they fix themselves for the season upon the roots or stems of plants. The Broom-rape on the roots of Coltsfoot are examples of those fixing on roots, and Dodder of those attaching themselves to stems, as it adheres to the stems of Clover. This leads me to the chief point—the inquiry, How is Mistletoe propagated? This is commonly believed to be effected by thrushes rubbing their bills, after eating the berries, on the branches of trees to clean off the viscid juice, by which some of the seeds adhere to the smooth bark, or are deposited in the chinks of the rough bark with their excrements. Miller notices both ways, but objects to the latter, because he considers that the seeds would not grow after passing through the stomachs of the birds; and also because their deposits could not lie on the under sides of the branches where Mistletoe is generally found. From these observations it seems that he did not understand the real habits of the parasite, nor the fact that seeds of

berries will grow after passing through birds; nor, what is of more consequence to the subject, that Mistletoe does not grow exactly where it first germinated, but creeps on a little way until it finds a suitable place to fix upon permanently. I give this on credit, but it accords with the habits of the other parasites already noticed. Of course, those who wish to propagate the Mistletoe should follow the plan of the birds, by rubbing a few seeds from its berries upon the smooth bark of the Thorn, or Apple; and also, for more certainty, into the chinks of the old bark. Each berry contains but one seed enclosed in viscid matter, by which it adheres firmly to the bark, and, also affords protection from the weather. It may also soften the bark for the seed to germinate upon. Perhaps January is the best time for the operation, but care should be taken to protect the seed by netting or gauze from the keen eyes of birds or mice. I have adopted this plan, and I see no reason to doubt of success—in fact, my friend Mr. Hart, who wrote what I have quoted, tried it successfully upon his Apple trees in his garden at Bellingford in this county; and I think that if nurserymen were to rear trees bearing Mistletoe, and fit for transplanting, they would find a ready sale for them among gardeners and amateurs in those parts of the country where this parasitical plant is not found growing wild.

J. WIGHTON.

BELLE AGATHE CHERRY.

WITH AN ILLUSTRATION.

SYNONYME. — *Belle Agathe de Novembre.*

THIS valuable Cherry was obtained from seed by Captain Thiéry, of Haelen, in the province of Limburg, in Belgium, so recently as the year 1852, and the rapidity with which it has spread is a sure indication of its merits and of the estimation in which it is held.

The fruit grows in dense clusters, and is small or about medium size, roundish oval, slightly depressed at the two extremities. It is of the Bigarreau character, but assumes more red on the skin than the Bigarreau. The skin is thick, the stalk long and slender. The flesh is hard and crackling like that of the Bigarreau, and when ripe is of remarkably nice flavour, sweet and sugary, and of a yellow colour. The stone is large for the size of the fruit.

This remarkable variety was introduced to this country from Belgium by Mr. Rivers, about ten years since. About the middle of September, when Cherries are gone and forgotten, this sort commences to ripen, and as it is a most abundant bearer, the trees when covered with their bright red fruit have a most summer-like look, reminding one of June. In size it resembles the Kentish; its flesh is firm, juicy, and sweet, and for the season refreshing and agreeable.

At Sawbridgeworth the birds do not touch it, so that during nearly the whole of October, two tall standard trees there are most ornamental. Whether the birds leave it unscathed because Cherries in October are unknown to the ornithological world is a question to be determined, at any rate the variety is well worthy of cultivation.

A small and very hard-fleshed Cherry called Tardive de Mans, is probably the parent of the Belle Agathe.

The tree is very hard and vigorous, and an abundant bearer.



Belle Agathe Cherry.

ROYAL HORTICULTURAL SOCIETY.

REPORT OF THE COUNCIL TO THE ANNIVERSARY MEETING,
FEBRUARY 10, 1863.

THE first duty of the Council on meeting the Fellows on the present occasion is to congratulate them on the success which has attended the Society during the past season.

A reference to the balance sheet appended to this report will show that the receipts have largely exceeded those of the previous year.

While thankfully acknowledging this measure of success, the Council cannot but feel that had H.R.H. the deeply lamented Prince Consort, who laid the foundation of it, and to whom it is mainly due, been spared to the Society, results even much beyond this would have been achieved. A very large portion of the prosperity which the Society has enjoyed beyond its ordinary receipts is referable to the Great Exhibition. The interests of the two undertakings during the past year were closely linked together, the same causes which injured or benefited the one equally affecting the other. Had, therefore, the influence of His Royal Highness been spared to it, it cannot be doubted that the Council would now have had to present a report even more favourable than the present.

Out of the receipts during the year, amounting to £29,800, a sum of £8676 was received as the Society's share of the joint season tickets, a sum of £1125 from the various refreshment contractors for portions of the Society's premises let to them, and £5029 from the promenades, chiefly drawn on those days when the charge for admission from the Exhibition to the garden was sixpence.

The flower shows produced upwards of £5000, which is the largest amount that has ever been drawn by the Society, from that source in any one year. Had it not been for the large number of joint-ticket-holders, this amount would of course have been still greater. The shows themselves were also of unparalleled excellence, the Council having determined that nothing should be spared to make them worthy of the Society, and such as would leave a favourable impression on the numerous visitors from abroad. A statement is given in the appendix showing the amounts received and the expenses disbursed at these shows so far as the latter can be separated from the general expenses of the establishment.

The Council have also to report favourably on a more important portion of the financial resources of the Society—viz., that drawn from the subscriptions. The following comparative statement of the number of Fellows, and their rates of payment, as at 31st December, 1861, and 31st December, 1862, shows the increase during the course of the year—viz.,

	As at 31st Dec., 1861.		As at 31st Dec., 1862.	
	Payable in advance.	Retro-spectively.	Payable in advance.	Retro-spectively.
Fellows paying 1 guinea.....	...	10	7	3
" " 3 guineas.....	...	23	16	9
" " 2 "	716	6	912	6
" " 4 "	915	215	1307	80
Fellows who have compounded by paying				
20 guineas	334	...	386	...
40 "	555	...	587	...
	2520	256	3215	98
	256		98	
	2776		3313	
			2776	
Increase	537	...

The above table shows the actual state of matters each year, at 31st December. But on taking deaths and resignations into account, it appears that 633 new Fellows have joined the Society since 31st December, 1861, and that there have been 55 deaths, and 41 resignations.

It will be seen from the above table that the recommendation of the Council in last year's report, that Fellows who paid retrospectively should change their retrospective payment into one in advance, has been well responded to—the number of retrospective subscribers having been reduced from 256 to 98. Many of those who are still in this position have no doubt continued so from inadvertence, and it is hoped that in another year the number may be still further reduced.

Through the consideration of the Fellows too, the transference of the period of payment from the 1st of May to the 1st of January has been all but unanimously carried into effect.

As regards the expenditure, the unfinished state of the garden, together with the

exceptional nature of the year, added to the fact that the previous season was equally exceptional from its being the opening year of the reconstituted Society, and from its only extending over eight instead of twelve months, prevent the receipts and expenditure of the two years being contrasted with each other, and the Council must confine themselves to treating the expenditure of each by itself.

The expenses of the publications of the Society are large, owing to the considerable number of Fellows; but the information contained in them is (the Council have every reason to believe), considered valuable by the Fellows at large. The Council, however, with the view of making it contribute to its own support, have resolved to allow advertisements to be received on horticultural and scientific subjects.

Mr. Weir, the plant-collector in South Brazil, has examined and reported on a district not much known, and when last heard from was on his way to explore new ground in the interior. Mr. Cooper, the plant-collector in South Africa, was sent out as an explorer at the private charges of Mr. Wilson Saunders, the Treasurer of the Society, who admitted it to a share of Mr. Cooper's collections on terms so liberal as to be almost gratuitous. Mr. Cooper explored the district of the Drachenberg Mountains, lying to the south-west of Natal, and found it, although in many parts barren, to contain a considerable number of plants of interest to the botanist, and some of much beauty, well worthy the attention of the horticulturist. The product of the labours of both these collectors have either already been distributed, or are about to be distributed among the Fellows by ballot.

The expenses of Chiswick have this year amounted to £2354, from which a sum of £435 may be deducted, which has been received for fruit sold and reimbursement of garden charges. Upwards of 50,000 bedding-out plants have been reared at Chiswick last year for use at South Kensington. Further, it is to be noted that the Fellows have received large quantities (upwards of 3000 packages) of cuttings of Vines and other fruit trees from this garden; that an unrivalled collection of fruit trees is there maintained for the comparison and testing of all kinds of fruits; that the experiments and trials of the Fruit and Floral Committees are conducted there, and a large portion of the flower-seeds grown which are distributed amongst the Fellows. 2610 packets of valuable seeds, 11,000 plants, and 166 lots of bulbs have been distributed from these or other sources during the past year. In addition there have been distributed 1500 packages of seeds of vegetables, and a like number of packages of flower seeds.

The expenses of the garden at South Kensington have amounted to £6063. The details of which this is composed will be found in the appendix.

The expenses for promenades and exhibitions have largely repaid themselves, besides affording much gratification to the Fellows, and the Council have resolved to continue the promenades during the present season, twice a-week from 16th May to 1st August.

The Council have the satisfaction of informing the Fellows that the Commissioners of 1851, through the Expenses Committee, with whom rests on their behalf the control and regulation of the expenses of the Society, in the most liberal manner authorised the expenditure of a considerable amount of the receipts in the execution of works which strictly speaking belong to capital—a liberality which in the present year, when there is a surplus to the half of which the Commissioners are entitled as their share of profit, is equivalent to themselves paying the half of these expenses.

The Commissioners of 1851 have throughout shown the utmost desire to promote in every way within their power the completion of the garden. It is to them that the Society owes the beautiful façade of the refreshment-room. They have paved the upper arcades during the season, and lent, as above mentioned, valuable assistance towards the completion of the garden, its clothing and decoration—works which the Council have felt to be of pressing importance. As regards the decoration of the garden, the Council have been much assisted by the liberality of the Fellows, who have allowed their subscriptions, originally intended for the French fountains, to be applied in the purchase of works of art for the garden.

As regards the planting of the garden, the Council have, they trust, effected considerable improvements in it by the introduction of clumps of trees and shrubs. They have also provided a large supply of bulbs for its spring decoration, and they have to acknowledge the assistance received by presents from Her Majesty, and some of the Fellows.

A great deal, no doubt, still remains to be done, but so far as these objects are concerned, the work already executed justifies the Council in looking at their progress with satisfaction. It is otherwise, however, with a part of the garden less under their control; a portion of the arcades still remains unfinished, and in a measure neutralises the beneficial effects of other improvements. The completion of the arcades belongs to the Commissioners of 1851, and notwithstanding the reluctance which the Council have naturally felt to press a body who had dealt with them so liberally, they have considered themselves called upon to make a most urgent appeal to the Commissioners on this subject.

There still remain structural works pressing for completion which belong to the

Society to execute; such as the council-room portico, steps in the middle walk, a western entrance, &c.

The Council regret to have to announce the retirement of Dr. Lindley from the Secretaryship, which he has held so long with honour to himself and benefit to the Society. Last year he tendered his resignation, but was induced to withdraw it at the solicitation of the Council, on the ground that as he had supported the Society during its period of depression, so he should remain as one of its officials until the next summer (1862) should have crowned his labours with success. He has now repeated his resignation, and the Council have most reluctantly felt bound to comply with his wish, and accept it. He has been for forty-one years an officer of the Society, and during that period, to use his own words, he "has endeavoured to the best of his ability to promote its true interests as a great English association for the advancement of horticultural knowledge, until, through many changes and some adversity, it has at length gained a position of high eminence, and may be regarded as standing on a secure foundation."

The Council need not repeat the arrangements for the coming season, which have been already made public. The chief alteration on those of last year is the non-admission of the public to the garden except on fête days and promenades, a restriction by which they trust that the comfort and quiet enjoyment of their garden by the Fellows and their friends will be materially increased.

The Council cannot conclude this report without congratulating the Fellows on the continued interest the Queen takes in the Society and its proceedings. Constant reports of its progress have been furnished to Her Majesty throughout the season, and she has in various ways marked the interest she has taken in them.

CASTLEMARTYR, THE SEAT OF THE EARL OF SHANNON.

To all lovers of gardening this beautiful place is one of very great interest. The Cork and Youghal Railway goes through the estate, and there is a station at Moguly, which is only a short distance from the demesne. The principal entrance is from the village of Castlemartyr. At a short distance from the lodge gate there is, on looking to the left, a good view of the old castle, the lower water, grounds, &c. The approach to the mansion crosses the water by a bridge, which divides it into the upper and lower lake. The water from the upper lake falls into the lower lake by a cascade below the bridge. Before passing over the bridge there are several objects on either side worth noticing. On the left are a number of flourishing Coniferae, among them a number of fine specimens of the common Silver Firs, several *Abies Douglasi* and *Cedrus deodara*, &c. On the right is what was formerly the old flower garden. There are a great number of fine trees and shrubs here. Among Coniferae are a number of fine Cedars, a very thriving *Picea Webbiana*, which at the time of our visit (in October last) had several of its dark fine cones on. We also observed a large mass of Pampas Grass in flower, and a very good plant of *Gaultheria shallon*.

On leaving these grounds we come immediately on to the bridge. On the left side is the cascade already mentioned, and on the right is the upper lake, which is a fine sheet of water. On one side there is plantation the whole length of the lake; the principal part of the trees nearest the water consist of evergreen Oaks, whose branches dip into the water, and has a fine effect from the bridge.

Passing over the bridge, we enter on the left the pleasure grounds, which are very extensive, and contain a profusion of evergreen trees and shrubs rarely to be met with. The health, freshness, luxuriance, and vigour of the foliage were evidence of the mildness of the climate, and struck us forcibly coming from the north of England, where the frosts of December, 1860, made such sad havoc among evergreen trees and shrubs. Coniferae have been largely planted all over the grounds, and are making fine trees. We noticed two of the handsomest specimens of *Abies morinda* that we recollect ever to have met with.

Passing by a wooden bridge over the lake we enter "Bridgetown" grounds, where the far-famed Camellias are growing in the open air. Being many years planted, they are chiefly the old sorts—such as *Waratah*, *Double White*, *Lady Harris's Blush*, *Colvilli*, &c. Some of them are as large as a moderate-sized Laurel. They were full of buds, and in the best possible health. When in full flower they must be a grand sight. There is also here a border of white Indian *Azaleas* in open air in the highest health; we never saw any under glass looking better. On the lawn are grand specimens of Coniferae, among them a fine *Cupressus funebris*, *Cryptomeria japonica* upwards of 30 feet high, a good *Wellingtonia*, a good *Cedrus deodara*, a very handsome *Araucaria imbricata*, &c. Here are some remarkably large Portugal Laurels. Outside these gardens we noticed a large specimen of *Paulownia imperialis*, some promising specimens of *Picea nobilis*, *Abies Douglasi*, *Thuja*, &c.

Retracing our steps across the wooden bridge, we proceed through the grounds and find

Conifers on every side, several large specimens of the Cedar of Goa, a nice young plant of *Picea Nordmanniana*. We are now on the south front of the mansion, where a very beautiful flower garden has been made a few years since, and which even late in October was looking well. The "bedding" had been well managed, and everything was best order and keeping.

The kitchen gardens are some distance from the castle—they are very extensive. There are several ranges of glass structures for the growth of fruit, flowers, and vegetables. The first range we were shown through consisted of two Peach-houses, four vineries, and plant-house. The Peach trees are very good—the wood everything that could be desired. In two of the vineries were a quantity of good late Grapes.

We were next shown through some span-roofed houses devoted to greenhouse plants. In one we saw a number of promising specimen *Pelargoniums* and other softwooded plants. In another a number of fine specimen *Azaleas* of the best sorts in fine condition; also several good *Epacris*, *Heaths*, and other hardwooded plants.

The next range of houses we were shown through were chiefly filled with stove plants, among them all the leading kinds of *Caladiums* and other fine-foliaged plants. There are also a number of good Ferns. Besides these there are a number of pits for Cucumbers, Melons, and for wintering "bedding" plants; also a number of frames. The fruit crop outdoors was, we were given to understand, light last year.

The vegetable department was everything that could be desired. The whole place reflected the greatest credit on Mr. Beggie, the gardener, for its high state of keeping and good management. The roads, walks, and lawns were in the best possible condition. At a short distance from the demesne is the "Park," which, to admirers of Conifers, is full of interest. Outside the entrance gate is a neat cottage, in front of which are two good *Araucarias*, one a particularly fine specimen. There is also a good specimen of *Abies Douglasi*; also one of *Cedrus deodara*. There are some flourishing young plantations in the "Park." The common Silver Fir does remarkably well everywhere. There are great numbers of fine young trees by the sides of the roads. The chief point of interest is a large natural mound in the valley, which is surrounded by higher ground. This has been planted with Coniferæ, and certainly they are at "home" here, as their health and astonishing growth testify. The spot seems peculiarly adapted to the growth of Conifers. Though high, it is completely sheltered from strong winds, and the plants get full exposure to sun and air. Around the base of the mound are planted a quantity of *Araucaria imbricata*, than which nothing could possibly be doing better. The whole of them are in the highest state of health, and most beautiful specimens; but there are a few which are really grand beyond description. They are perfect gems—so furnished and symmetrical. The following are some of the principal Coniferæ on the mound:—Two good *Cryptomeria japonica*, three fine *Abies pinsapo*, three *A. cephalonica*, three large *A. Douglasi*, three grand *Picea nobilis* (one with cones), two *Taxodium sempervirens*, one *Pinus monticola*, one *Picea Webbiana*, one *P. religiosa*, &c. These are all getting quite large trees, and have grown astonishingly these last few years.

M. S.

THE GARDENERS' BENEVOLENT INSTITUTION.

THE recent election of pensioners on the funds of this invaluable charity tells a sad tale for there were five applicants who had subscribed for fifteen years and upwards, and only two could be elected for want of funds. I am sorry to say there are many gardeners who do not subscribe that are quite able to do so; and, on canvassing some of them, they say that it is of no use to commence now, as under the present rules there would be no chance of their ever getting on the pension list should they require it. Cannot something be done before the lapse of another year to dispel this illusion, and to try and make the advantages of the charity more apparent to working gardeners? This class has seldom the chance out of their small salaries of saving any money to provide for a rainy day, and they could not make a better investment than by subscribing a guinea a-year to this charity for that purpose. Situations of the highest class are only few in comparison with the others, and should the lucky holders of them never be compelled to apply for a pension they have the satisfaction of aiding many a poor gardener who is less fortunate. In a late Number of the *Gardener's Chronicle* there is an excellent leading article on the subject, and a strong appeal is made to gardeners of all grades to join the Institution. It seems there are only 294 gardeners who are subscribers at present, and the Committee have only £750 from all sources to go in pensions; and it is impossible for any charity to be more economically and better managed. There ought at least to be more than 1000 subscribers amongst gardeners in the 10,000 parishes in England alone.

As the name of the late Mr. Mearns has been incidentally mentioned in connection with the charity, allow me to mention a few circumstances that came under my knowledge respecting his destitute state in his old age. He often used to lament to me that the

Institution had not been established sooner, so that he might have been enabled to be a subscriber with the money he had spent in books which were now of no use to him. I hope I may not be thought guilty of saying anything disrespectful to his memory if I state what I think was the cause of his saving nothing for a rainy day on purpose to be a beacon for others. Poor Mearns was not a drinking man, nor given to vice of any kind; but he was fond of company, and kept an open house to all callers. He held an excellent situation for nearly twenty years, and never had a large family to be a drain upon his resources, yet he never saved money; and men of his temperament rarely ever do, when they have the chance. Being a near neighbour, and brought up at the feet of the great horticultural "Gamaliel," the late Mr. Knight, of Downton Castle, he was, like him, full of experiments on hybridising, coiling Vines in pots, grafting fruit trees, and so on, and delighted in gardeners calling and seeing them. Peace to his manes! A more enthusiastic gardener or a kinder-hearted man never existed.

I have never been able to understand how it is that in the generality of places gardeners are paid lower salaries than the coachman or butler. Is it because there is greater mind required in the driving of horses or the drawing of corks, or is it for show? If for the latter, gardeners had better go back to the days of Mawe and Abercrombie, and wear cocked hats and get bedizened with gold or silver lace on their coats. I am not alluding to gardeners of the cow and gig class, but those who have been well educated and have served a regular apprenticeship by roughing it out in bothies at the cost of much comfort and self-denial. They are expected to know almost "Rees' Encyclopædia" by heart on purpose to have a general knowledge of botany, landscape-gardening, and natural history.

WILLIAM TILLERY.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 21.)

PETUNIA GUIDO.—Mr. Bull: Second-class Certificate, July 2.—A variety with mulberry-crimson veined flowers of medium size and good form, and very freely produced.

PETUNIA MADAME RENDATLER.—Messrs. Veitch & Son: Second-class Certificate, May 6.—A double purple rose, here and there margined with white. The flowers full and double.

PETUNIA MRS. FERGUSON.—Mr. Ferguson, Stowe, Bucks: First-class Certificate, May 6.—A remarkably beautiful single Petunia. The flowers white, marked with almost perfect uniformity by a stripe of magenta rose on each of the five divisions of the corolla.

PETUNIA RUBY.—Mr. Bull: Second-class Certificate, May 21.—Dark purplish-crimson, with dark throat; fine form, and good habit.

PETUNIA VENUS.—Mr. Bull: Second-class Certificate, June 26.—A fine bold flower of good form, distinctly and deeply veined.

PHYLLAGATHIS ROTUNDIFOLIA.—Messrs. Veitch & Son: First-class Certificate, March 19.—A dwarf stove plant from Java, having ornamental foliage, moderately large, broadly cordate, longitudinally ribbed, dark green, with a metallic tinge, and sprinkled with hairs.

PHYSURUS FIMBRILLARIS.—The Society: First-class Certificate, April 22.—A dwarf stove Orchid, with ovate leaves beautifully veined with silver on a green ground colour. It was considered to be the best among the dwarf silver-variegated Orchids.

PINK BERTHAM.—Mr. Turner: First-class Certificate, June 26.—Large and well filled; the very heavy lacing and blotch of a reddish-purple.

PINK BLONDIN.—Mr. Turner: Second-class Certificate, June 26.—Showy, with deep rosy purple lacing and blotch; the colour rather speckled.

PINK BRIDESMAID.—Mr. Turner: First-class Certificate, June 26.—Ground colour very pure, with a medium lacing of bright crimson purple; the base of the lamina marked by a deeper-coloured blotch.

PINK DEVIL (Maclean).—Mr. Turner: First-class Certificate, June 26.—Large, with broad lacing and blotch of deep rose purple.

PINK EXQUISITE.—Mr. Turner: First-class Certificate, June 26.—Large, with a heavy even lacing of light rose purple. Very distinct and pleasing.

PINK MARION.—Mr. Turner: First-class Certificate, June 26.—Full and well formed, with a medium lacing of deep rose purple, and blotched with a deeper shade of the same at the base; the white remarkably fine.

PINK MR. F. COAFFE.—Mr. Hooper, Vine Nursery, Widcombe Hill, Bath: First-class Certificate, July 2.—A medium-sized rose-leaf flower, heavily laced with deep crimson.

PLANERA ACUMINATA.—Messrs. Veitch & Son: Bronze Medal, May 21.—A valuable timber tree, growing from 99 to 100 feet high. Introduced from Japan, allied to the Elms, and bearing ovate, acuminate, sharply-serrated leaves.

POLYBOTRYA APHIFOLIA.—Messrs. Veitch & Son: Bronze Medal, July 2.—A curious dimorphous stove acrostichoid Fern from the Philippine Islands. The sterile fronds of a greyish-green and tripinnate; the fertile ones entirely soriferous, compound, with the parts much contracted.

POLYGONATUM OPPOSITIFOLIUM, var. ALBO-VITTATUM.—Mr. Standish, Bagshot: First-class Certificate, April 22.—A beautiful striped-leaved Japanese form of Solomon's Seal, having the stems red, and the leaves distinctly striped with clear white on dark green; the flowers white with a greenish-tinted spreading limb.

POLYSTICHUM CONCAVUM.—Mr. Standish: Silver Banksian Medal, May 21.—A lovely greenhouse, or, perhaps, hardy Fern from Japan, with large ovate fronds, which are quadri-pinnate, with crowded obliquely ovate, more or less lobed, and rather sharply but shortly-toothed pinnules, the margins of which are curved upwards, so as to give to their upper surface a concave.

PRIMULA PRÆNITENS (fimbriata flore pleno), DELICATA.—Messrs. F. & A. Smith, Dulwich: First-class Certificate, April 1.—A very fine double Chinese Primrose, obtainable from seeds. The flowers are large, full, double, fringed, white changing to a delicate blush. One of the finest forms of double Chinese Primrose yet produced.

PRIMULA PRÆNITENS (fimbriata flore pleno), THE FAIRY.—Messrs. F. & A. Smith: Commended, April 9.—A dwarfer-habited, and very double sport of the foregoing.

PTERIS NEMORALIS VARIEGATA.—Mr. Cole, Manchester: Bronze Medal, May 21.—A new and interesting variegated stove Fern, a sport from *P. tricolor*. The fronds pedately bipinnate, with the pinnæ marked down the centre with a broad band of greyish-white, on which the ribs show a faint tinge of red. It came amongst plants of *P. tricolor* raised from spores, and in appearance is intermediate between that plant and *P. argyræa*. The fronds are olive-coloured when young, with the grey part pinkish.

QUERCUS SEMPERVIRENS.—Messrs. Veitch & Son: Bronze Medal, July 2.—An Oak from Yeddo, with smooth, ovate, wavy, clean-looking foliage.

QUERCUS SP.—Messrs. Veitch & Son, and Mr. Standish: Silver Banksian Medal, July 2.—A Japanese Oak, the leaves of which are pubescent and irregularly pinnatifid.

RETINOSPORA PISIFERA var. AUREA.—Mr. Standish: First-class Certificate, May 6.—A form of the graceful Japanese *Retinospora pisifera*, one of the chief peculiarities of which is its light feathery aspect, arising from the spreading of the pointed leafscales which clothe its finely branched spray. This variety has the young growth of a distinct, lively, yellowish colour.

RETINOSPORA SP.—Messrs. Veitch & Son: Silver Knightian Medal, June 11.—A young Japanese Conifer, with broad, flat branches, bearing pointed falcate leafscales, and appearing glaucous as they become mature.

RETINOSPORA SQUARROSA.—Messrs. Veitch & Son: Silver Banksian Medal, June 11.—Something like *R. pisifera*, with the addition of glaucous variegation.

RHODANTHE ATROSANGUINEA.—Mr. W. Thompson, Ipswich: Silver Banksian Medal, July 2.—A pretty Swan-River annual, branching freely from the base, with spatulate glaucous leaves a good deal pitted on the surface; the bracts minute, and the flower-heads of a deep magenta rose, with bronzy red disk. It is a very distinct and desirable plant.

RHODANTHE MACULATA.—Mr. W. Thompson: Silver Banksian Medal, July 2.—A very beautiful Swan-River annual, stouter and taller than *R. Manglessii*, and with shorter broad rounded leaves, scarcely at all glaucous; the flower-heads large, pale rosy pink, marked inside with deep crimson, so as to form a darker-coloured zone around the yellow disk.

(To be continued.)

FRUIT-JUDGING AT KENSINGTON.

ON receiving the February Number of the *FLORIST AND POMOLOGIST*, I was rather surprised to read of Mr. Bousie's description of the fruit exhibited by me at the Great International Show of Fruits, &c., on October 8, 9, and 10, which obtained a prize. He states that one fruit had a piece out of the side, and two others had large black blotches or bruises, and apparently unsound. I beg to ask Mr. Bousie if he really thinks that any sane man would stage such a collection of fruits open to all the world? I think not. I will endeavour to put Mr. Bousie right on this point. The Pears in question were staged by myself and foreman, and two of my neighbours assisted me—they can bear witness of the soundness of the fruit; and furthermore, after being three days exposed in the show-room, they were packed-up and sent a distance of 420 miles to my employers, who pronounced them excellent in every way.

Blochöme Hall.

D. LUMSDEN.

EXHIBITING DAHLIAS.

I ENTIRELY disagree with Mr. Keynes as to his proposal about judging. I once knew a society where some growlers were always imagining the Judges to be as great rogues as themselves, and the plan was adopted of putting the names of exhibitors prominently on their boxes, &c. The result was, that the growling to a great extent ceased.

One rule I would make, though perhaps Mr. Keynes would disagree with me, "*That no raiser of seedlings should judge the productions of the person to whom he sells his flowers.*" An adherence to this might have altered the decisions at South Kensington and Bishop Auckland last year.

V.

THE STAPLEFORD TULIPS.

TULIP-GROWERS need not be told that the Stapleford Tulips have already a great reputation, although only very few of them have yet been distributed. But we are glad to inform our readers that Mr. Headly has at last determined on parting with a great many varieties in May next, when a sale by auction, without reserve, of 150 rows will take place. Many of Mr. Headly's seedlings, which have never yet been distributed, will then be parted with. Amongst them in Bizarres:—General Havelock, Horatio, Oscar, Paragon (a gem), Duke of Leeds, George Lightbody, Garibaldi, Jason, and Richard Headly. In Bybloemens:—John Linton (a noble flower, finer than Adonis), Proserpine and Indispensable (both splendid-feathered Bybloemens), John Thorniley, Sir John Lawrence, Othello, Inkerman (a fine-feathered Bybloemen), Alma, and Mahomet. In Roses:—Mary Thorniley (a beautiful-feathered rose), Anthusa, Siren, Regalia (a fine-flamed flower), Circe (a beautiful-flamed flower), Roxana, Regina, Pallas, Semiramis, and Cedo Nulli. These are a few of the gems not yet sent out, and of some of which several roots will be sold. Added to these will be a number of other first-class sorts, such as Sarah Headly, Mary Headly, Demosthenes, Pactolus, Adonis, Willison's Sir Joseph Paxton, Barlow's Rose Celestial, and other fine flowers. We must refer our readers to the catalogue itself, which will be ready in March, for further particulars of this most interesting sale.

ON SHELVES.

THESE are more or less useful in hothouses, greenhouses, and conservatories; indeed there are but few places (if any) that they can be dispensed with. Having had an occasion to superintend the fixing of some, I had them grooved, and placed on an incline of 1 inch in 200. A lead or zinc pipe is fixed to the end of the shelf or shelves, and conducts the waste water into a cistern or drain underneath.

I find by adopting this system there is no dripping on the plants beneath, nor yet swimming the floor with water at a time when it is undesirable to do so.

This system will also extend itself to the pathways and floors of conservatories and hothouses, to the making of doors, the fixing of wall-plates, &c.—in fact, anywhere where it can be employed; finished-off on an incline instead of a square, there will be no chance of the water lodging. The foregoing observations are not unworthy of the designer of horticultural erections, both as regards the health of the plants and the credit of him who has the charge of them.

Merevall.

W. BROWN.

REVIEW.

The Illustrated Bouquet, consisting of Figures with Descriptions of New Flowers. E. G. Henderson & Son, Wellington Road.

WE have just received the December part of this beautiful work, which maintains the high character of its predecessors. It contains four plates illustrating five subjects, which are—*Imantophyllum miniatum*, *Primula sinensis filicifolia rubra*, *Swainsona violacea*, Strawberry Titien, and *Reineckia carnea variegata*.

CALENDAR OF OPERATIONS.

CONSERVATORY.

If advantage be taken of the increasing warmth of the sun by closing the houses early in the afternoons, little fire heat will now be required unless in case of severe frosts. In giving air, be careful to guard against cold March winds. Watering will now be no longer required. Keep a healthy growing atmosphere. In addition to American plants and bulbs, the forcing-

THE FLORIST AND POMOLOGIST.

pit will now supply Lilacs, Deutzias, Roses, and numbers of other things, which will add to the gaiety of the house and give a greater variety. A few Indian Azaleas, Cinerarias, and Pelargoniums should also be introduced. Camellias and Acacias will now require liberal supplies of water. Regulate and attend to climbers as they advance in growth. See that all plants are clean and free of insects.

GREENHOUSES.

HARDWOODED PLANTS.—Presuming that soil, pots, crocks, and everything have been got ready as directed last month, proceed with the shifting of the plants with all the despatch possible, potting first those that require it the most. Be careful to drain the pots well with broken crocks, and in potting to press the soil firm. After they are potted they will not require much watering until they begin to root into the fresh soil; the house should be kept rather close for a week or two. In fine weather the plants may be syringed occasionally. Ventilate cautiously, avoiding cold draughts until they are re-established. **SOFTWOODED PLANTS.**—*Pelargoniums*.—These will now require a good deal of attention. Thin out all the small weak shoots, and tie out to admit the air freely. Water well when they require it; give air freely in the forenoon of fine days. As the plants will now begin to grow fast, the temperature at night should not fall much below 50°, and during the day it should be 60°, with an increase by sun heat. Scarlet and variegated *Pelargoniums* intended for specimens for decorative purposes should now be potted in a good rich soil, and should be encouraged to grow. *Cinerarias*.—As these are very subject to green fly, attend well to fumigating. Ventilate freely, and give them plenty of water. Sow seeds and attend to the young plants when up; they will be useful for autumn and winter flowering. *Calceolarias*.—Water freely and give plenty of air. Shift for succession. *Fuchsias*.—These will now be growing freely, and should be kept tolerably warm. Stop all long shoots to form compact, bushy plants. Syringe every fine afternoon. They should be well watered when the pots begin to get full of roots. Shift young plants for late blooming.

STOVE.

Stove plants of all kinds do best with bottom heat, and should, if possible, have it. The plants that were started last month will now be growing fast. Syringe them daily, and shift into larger pots when they require it. Strong-growing plants should have a large shift, and when they begin to root freely into the fresh soil they will require liberal supplies of water. Ventilate freely when the weather permits, and maintain a moist growing atmosphere by sprinkling the paths, walks, &c., with water. Spare no pains to keep the plants clean and free of insects.

FLOWER GARDEN.

Plant herbaceous plants. Dig and dress borders. Prune Roses. Tie-up creepers and twining plants. Attend well to the "bedding" plants, and increase anything that you be short of. Pot-off cuttings and place them in a pit or frame where they can be kept close until they get properly established in their pots, when they should be hardened-off carefully. *Pleasure Grounds*.—After the extraordinary open winter we have had, so favourable for out-door operations, little in the way of planting should now remain to be done. The laying of turf, sweeping and rolling of grass, edging of walks, turning of gravel, and similar operations should now be pushed forward and brought to a close, so as to give a neat and finished appearance to the grounds.

FORCING.

FRUIT.—*Fine Apples*.—For fruiting plants the directions given last month are applicable this. Take advantage of fine weather to shift the whole of the young stock. If the tan or leaves, or other means of furnishing bottom heat require renewing, this will be a favourable opportunity for doing so. When potted, they should have a bottom heat of about 85°; they should be kept close until they begin to root into the fresh soil and begin to grow, when air should be

given freely; they will then require liberal supplies of water. *Vines*.—When the Grapes in the early house begin to colour, cease sprinkling the paths with water and keep a dry atmosphere; give an abundance of air. For second house see directions in last Calendar for early house. In the later house attend to the trimming, stopping, and tying-down of the shoots. *Peaches and Nectarines*.—Thin the fruit well before they get too large. Attend regularly to the disbudding of the shoots. Syringe the trees once or twice daily. Ventilate freely in fine weather. Give the borders a good soaking of water when they require it. *Figs*.—Attend to the thinning, stopping, and regulating of the shoots. Syringe once or twice daily, and keep a moist atmosphere. Plants in pots and tubs should be occasionally watered with liquid manure. *Cherries*.—When the fruit is stoned increase the temperature to 55° by night and 65° by day. Syringe daily and attend well to the watering. Ventilate freely. Caterpillars sometimes eat the young leaves; they should be well looked for. *Strawberries*.—Plants swelling-off their fruit should be kept close and warm, and well watered. Plants in flower must have an abundance of air, otherwise they will not set freely. The night temperature should not exceed 50°. Introduce a fresh batch of plants once a fortnight. *Melons*.—Plant out on well-prepared beds the plants raised last month. See they have a bottom heat of 80°. Give air cautiously in cold weather. Sow some Green-fleshed sorts for succession.

VEGETABLES.

Asparagus, Sea-kale, and Rhubarb.—*Asparagus* should have plenty of air and light to come good. Keep up a succession by introducing fresh roots. *Kidney Beans*.—With the increase of solar light and heat these will now grow stronger than during the winter months. They will require to be syringed carefully and to be well attended to in watering, keeping a succession by sowing when required. *Potatoes*.—Give the early crops plenty of air, and water them well when they require it. Plant for a succession. *Mustard and Cress*.—Sow once a fortnight. *Tarragon and Mint*.—Put a few roots into heat. *Capsicums and Tomatoes*.—Sow, and when up pot-off. *Cucumbers*.—When the bed is in a fit state put out the plants raised last month. Attend carefully to them. Earth-up as they require it, and stop and peg down the shoots when in fruit. Sow for later crops.

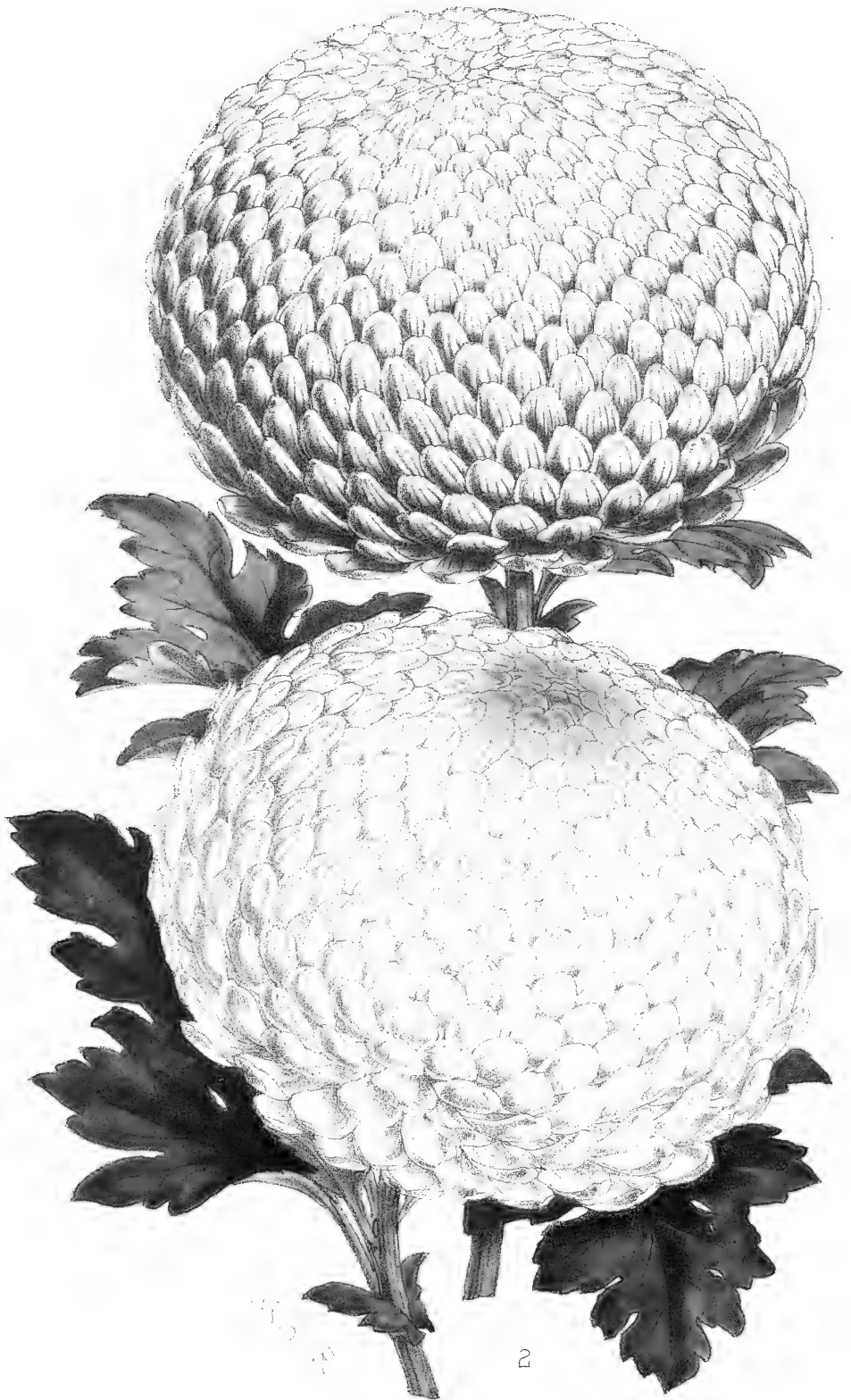
HARDY FRUIT.

It is very probable that after the mild winter we have had we shall have a cold and unfavourable spring. All pruning and nailing, if not already done, should be finished at once. Materials for protecting wall trees must be got ready and put up when wanted. Mulch well all newly-planted trees. Grafting may be performed any time this month.

KITCHEN GARDEN.

The season for active operation has now arrived, and every advantage should be taken of favourable weather and a good state of the ground to get seeds sown. Autumn-sown *Cauliflowers, Lettuces, Cabbages, and Onions*.—Plant out. *Potatoes*.—Plant all the early kinds. *Asparagus*.—Make new beds either by sowing the seed or planting seedling plants. *Artichokes*.—Dress by removing some of the suckers and by levelling and digging the ground between the plants. *Onions*.—Sow at the beginning of the month for the general crop. *Carrots and Parsnips*.—Sow for the main crop. *Turnips*.—Sow a few for early use. *Spinach*.—Sow a little Round for early use. *Peas and Beans*.—Sow twice during the month. *Brussels Sprouts, Broccoli, Savoy, Cauliflowers, and Lettuces*.—Sow on a warm sheltered border. *Cabbages*.—Sow for autumn and winter use. *Radishes*.—Sow. *Curled Parsley*.—Sow a good breadth. *Leeks*.—Sow any time during the month. *Salsify and Scorzonera*.—Sow towards the end of the month. Put in cuttings of Sage, Rosemary, Lavender, Savory, &c. Cut and trim Box-edgings. Dig the fruit-tree borders if not already done, and give everything a neat appearance.—M. S.

1



1, Talbot — 2, Princess Alexandra .

NEW CHRYSANTHEMUMS.

WITH AN ILLUSTRATION.

It has been well remarked by Mr. Salter, some of whose new flowers are now figured, that Chrysanthemums are, in these days, not only extensively cultivated as ornaments to the conservatory in winter, but as most attractive flowers for public exhibitions. Indeed, so attractive are they, and that at a season when the bright beauties of summer and autumn have for the most part faded from our view, that we think it is unfortunate that our leading horticultural bodies—the Royal Horticultural Society in particular, because on this body the advancement and encouragement of horticulture, in all its branches, rests, as a public duty—cannot find the means, or display the courage, to maintain an annual show of the Chrysanthemum, which, be it noted, has this additional claim upon their support—that it is emphatically the poor citizen's flower, growing well even in London, and flowering freely and in the highest state of perfection in the midst of the smoky and foggy atmosphere of the metropolis. We really hope this Society will have the good taste to address itself to the fulfilment of its proper mission, and at least give as much encouragement to flower-growing among the humbler classes as it does to fashionable promenading. To this end we hope to see Chrysanthemum shows maintained; and, along with the highly-cultured exhibitions of professional growers, we would fain see invited the productions of the more humble growers who are to be found in the courts and byways of London, because the humanising taste for flower-growing ought to be in every way fostered and encouraged.

Every year adds to the number of the varieties at the disposal of the Chrysanthemum-grower, and in most instances furnishes him with some improved materials to work upon. Perhaps the season of 1862 was not quite so marked as its predecessor in respect to the production of first-class flowers, such, for example, as *Carissima*, *General Slade*, &c.; but a considerable array of novelties was presented for public approval, some being varieties of very considerable merit. Among them, our choice fell upon one called *Princess Alexandra* (all honour and happiness to its fair Danish prototype, now a Princess of our own!), and upon another called *Talbot*, the peculiarities of which we shall presently explain.

Beyond these, of the sorts which we had an opportunity of seeing those which appeared the greatest acquisitions are briefly noted below. *Princess Louis of Hesse* is a variety which promises to be very useful as a conservatory plant, being of dwarf, compact habit, and a free bloomer, the flowers of a rosy pink, with incurved florets paler at the back. *Her Majesty* is one of the slightly-tinted whites, like *Vesta*, very beautifully formed, and very perfect—a model flower, no doubt, but to our mind less distinct than those already named; very handsome, nevertheless, being of free dwarf habit, and a compact grower, and therefore available for cultivation as a specimen plant, while it will rank amongst the best for cut blooms. This style of flower appears to have reached nearer to ideal perfection than any other, for we see from time to time some charming samples in this way brought forth at the exhibitions. *Lord Palmerston* has been highly spoken of, and is of a fine showy colour, described as “dark rose amaranth, incurved, and tipped with silvery blush;” but it is too flat for our taste, though astonishingly “filled-out” in the picture given in a contemporary. *Duchess of Buckingham* is a sulphury white, and seems likely to be a useful decorative sort. We saw nothing remarkable among Pompons.

The varieties we have figured have each a well-marked character distinct from the sorts previously known. *PRINCESS ALEXANDRA* (*fig. 2*) is a lovely flower, of great merit; and, the plant being of free habit, and blooming abundantly, it will make a handsome specimen. The flower-heads are also adapted for display as cut blooms, being incurved and well filled-out, of about average size, with the outer florets deep blush-lilac on the outer surface and creamy on the inner face, and the central ones lemon-coloured: these varied tints are very pleasing. *TALBOT* (*fig. 1*) is of a different model, resembling Dupont de l'Eure in form and character, the flower-heads being close and full, moderately but effectively incurved, the florets short and rigid, and the colour of a deep rosy lilac, with silvery tips, or, as Mr. Salter expresses it, "rosy amaranth tipped with blush." It will be found adapted for show purposes.

We ought not to close our remarks without recommending Mr. Salter's catalogue of the present year to the notice of those who are interested in Chrysanthemums, on account of a novel feature of some importance which it contains. Complete information is given respecting the diversified properties of the various sorts, and the peculiar purposes to which they may be most usefully applied. Some sorts have the petals more or less naturally incurved. These attain the spherical and symmetrical form recognised as the model of perfection, and are cultivated by exhibitors for the purpose of furnishing cut blooms; and flowers of this description are not uncommonly seen at the shows, varying from 4 to 6 inches in diameter. To obtain this size it must be understood that peculiar treatment is adopted. The whole vigour of the plant is concentrated in four or five blooms, and all loose or misshapen florets are carefully arranged or removed. It would be folly, observes Mr. Salter, to disguise this fact, which is noticed to prevent disappointment to those who may be led to suppose that flowers of these dimensions are the result of ordinary culture. Other sorts have a graceful habit and persistent green foliage, and bear a profusion of flowers, some with the florets incurved and others reflexed. Such varieties are not unfrequently exhibited from 12 to 15 feet in circumference, and covered with hundreds of flowers. Others, again, are remarkable for late blooming, some remaining in flower throughout December and during the early part of January. The late-bloomers come in useful for the conservatory or for bouquets at a season when few other flowers can be procured. The peculiar features of the several varieties in respect to these qualities are indicated throughout the catalogue, which will be found extremely valuable by those who may not have had the opportunity of making the observations for themselves. Several other novelties besides those we have mentioned are also described therein.

M.

NEW ROSES OF 1863.

VILMORIN, ANDRIEUX, ET CIE. have kindly sent me the raisers' account of twenty-four new Roses, which will raise the aspirations and expectations of rosarians. They are all marked as vigorous or very vigorous except two.

Rosier, Thé.—Mlle. Adèle Jougant (Ledéchaux), vig.; medium flower, nearly full, clear yellow.

Rosier, The Bourbon.—Louise Margottin (Margottin), vig.; very good form, very tender satin changing to whitish-rose. The issue of Louise Odier.

Rosiers, Hybrides Rencontants.—Alfred de Rougemont (Lacharme), vig.;

flower large, good form, very fiery red, vivid, and sometimes dotted with white. Baron Adolphe de Rothchilde (Guillot fils), very vig.; large, full, good form, dark red carmine, shaded with violet. Baronne de Lassus de St. Genies (Granger), vig.; foliage glaucous green, flowers medium or large, globed, beautiful cherry red shaded with purple; form perfect. Belle des Massifs (Ducher), vig.; medium, full, good form, vivid rose, sometimes the petals more pale. Comtesse de Courcy (Levêque), very vig.; foliage glaucous green, medium, full, good form, rose shaded with red; very abundant bloomer. Comtesse de Pognac (Granger), very vig.; foliage glaucous green, medium or large, full, very brilliant velvety clear red, and shaded with fire (feu); colour superb. Duc d'Anjou (Boyau), very vig.; foliage glaucous green; very large, full, red-crimson shaded with sombre red. Duc de Bassano (Portemer fils), vig.; large, full, cupped, dark velvety crimson. Gustave Rousseau (L. Fargeton), very vig.; foliage dark green; large, well imbricated, violet red and fiery; form perfect; a very pretty variety. Henry IV. (Ch. Verdier fils), vig.; medium, full, vivid purple. Impératrice Maria Alexandrina (Damazin); medium, full, white, of a beautiful form. Jean Goujon (Margottin), vig.; large, full, beautiful clear red. L'Eclatante (Guillot fils), vig.; medium or large, full, poppy red changing to violet purple red; "belle tenue" (I cannot translate this). Le Rhone (Guillot fils) vig.; red vermilion. Madame Alfred de Rougemont (Lacharme), vig.; large, full, form of the hundred leaves; white, slightly shaded with rose, embroidered with carmine—"lisere carmin." Madame Helye (Portemer fils), very vig.; large, full, globed, red crimson. Madame William Paul (Ch. Verdier fils), vig.; full, violet red shaded with vivid fire. Peter Lawson (Thomas), vig.; very large, full, poppy red, very vivid, shaded with carmine. President Lincoln (Granger), very vig.; dark green foliage; very large, full, imbricated, beautiful cherry red shaded with "boun superbe;" the issue of Lord Raglan. Sœur des Anges (Oyer), vig.; large, full, tender rose, changing to white; having some resemblance to Malmaison. Triomphe d'Angers (Robert et Moreau), very vig.; large, full, good form, velvety poppy red, and shaded with carmine.

Such are the raisers' descriptions of twenty-four of the Roses of 1863. The descriptions of the Roses of 1862, as tried here, were wonderfully faithful. I have the picture of Sœur des Anges; it is a very large and very beautiful Rose, and might have been raised from Paul's Victoria, or from Malmaison. The portrait was taken from life, and its fidelity is guaranteed by Verschaffelt. It is now placed in the office window of the *Dorset County Chronicle* by Mr. Fyfe's kind permission. All the Dorset people are determined to have the "Angels' Sister." I have ordered thirteen plants of it.

Rushton.

W. F. RADCLYFFE.

A FEW WORDS ON BEHALF OF THE PETUNIA.

WE are often told that in the present day there is as much a fashion in the cultivation of certain flowers as there is in the external adornment of mankind. To a certain extent this may be admissible, but no reason can be assigned why a truly good and useful flower should ever be neglected or cast aside. Novelties, novelties, are the order of the day, quite as much in dress as in flowers; but unless these novelties among flowers are improvements in their several classes upon older and well-known varieties, they very soon find their level, and not unfrequently the ignominious corner of the rubbish-heap. No flower has done more service to the floricultural world than the Petunia. It

is a gay, cheerful, and decorative spring flower for the conservatory, and it is especially useful as a free-flowering bedding-out plant; but at the present time, although thousands of seedlings are annually produced, yet this valuable plant seems to be overlooked in our public exhibitions. We rarely find prizes offered for specimens of the *Petunia*. I know not how to explain this omission, for we have the recommendations of colour, form, and fragrance. We no longer see the old, loose, flaccid, pentangular form, dull and heavy in colour, but we have the florists' greatest points of excellence fully exemplified—circular form and substance of flower. To speak only of the single varieties, there are some very charming flowers in selfs, striped, striated, or veined varieties, with deep and dark centres. Some of those which were exhibited last season by Mr. Bull, Chelsea, gained the admiration of all who saw them.

But when we speak of the double varieties of this flower, it is really surprising that we so seldom see a good specimen plant exhibited. Who that ever beheld a well-trained specimen of that charming old double variety, *Antigone*, well covered with its snow white flowers, did not express his heartfelt admiration? or who that has had the good fortune to see a specimen of that beautifully mottled mauve and white flower, *Eliza Mathieu*, sent out last year by Mr. G. Smith, Hornsey, could fail to pronounce it a first-rate plant, well deserving the first-class certificate which was awarded it? We need only mention these two varieties as useful kinds—there are many others of equal merit. We may particularly notice the four double varieties sent to the Kensington Gardens last summer by Messrs. Low, Clapton. These were but small plants with one flower only expanded. Should these varieties prove true to their character they will be a great acquisition to those already in cultivation.

The *Petunia* displays some little disposition to sport, and many complaints have been made this summer of the inconstancy of the variety *Mrs. Ferguson*; but a proper attention to soil, and a due limit to the size of the pot the specimens are grown in, will generally remedy this evil and insure success.

Trusting that these few hasty remarks may meet the eye of some enterprising amateur, and induce him boldly to come forth to show the floricultural world how much may be done with the *Petunia*, and how sadly it has been neglected, we may then hope to see during the coming summer specimens exhibited which shall induce people to stop to admire them. Let no one be discouraged because no special award is offered in these days of horticultural economy. Let no one feel ashamed of exhibiting in the Miscellaneous class—the refuge for all florists' flowers, for, if worthy, plants therein exhibited cannot fail to meet with their reward.

P.

CULTURE OF THE IXORA.

THIS is an exceedingly fine genus of plants, many of them being, when well grown and bloomed, amongst the most effective and attractive of stove plants. Nearly all the varieties bloom very freely, and none are particularly difficult to manage; but, save in the collections of a few of our leading exhibitors of stove and greenhouse plants, fine specimens of these are rarely met with. And I think it would be difficult to name any genus which is so commonly mismanaged as this is, and this even where the necessary conveniences, &c., for growing them properly are at command. The *Ixora* is as suitable for ordinary decorative purposes, where a high order of this is aimed at, as for exhibition work; and it is well known that really fine, well-

bloomed specimens of these are great points with judges and the pride of exhibitors ; and so they are when seen in the home show-house.

The culture of the *Ixora*, although somewhat troublesome, is, where the proper temperature, &c., can be commanded, very simple ; and if persons attempting to grow these would attend to the following hints on their culture, we should not, I believe, so frequently meet with instances of failure as has hitherto been, and still is the case. To grow any of the varieties successfully, there must be the means of maintaining a moist temperature of from 70° to 80° by day, and 65° to 70° at night, while the plants are making their growth, and until they are fairly set for bloom ; and where this cannot be commanded the culture of these should not be attempted, for the chances are that, despite every care and attention, it will prove unsatisfactory, if not a failure. There is also one other point which must be attended to in order to insure success—viz., keeping the plants free from insects. They are very liable to be infested with brown scale, thrips, red spider, green and black fly ; and all these pests must be kept under at any expense of labour, &c., where success is to be insured. *Ixoras* are not, however, more subject to these pests than many other plants ; but they cannot, after they are fairly set for bloom, be smoked without danger of causing the bloom to fall : hence every care should be used to keep them perfectly clear of aphids, &c., while this can be done safely by means of tobacco smoke. It will occasionally happen that a specimen which has been kept perfectly free from insects while making its growth, will be suddenly attacked by some pest directly it is fairly set for bloom ; and in this case I lay the affected plant on its side, over a large wooden tray, and syringe it with what is known amongst plant-growers as “Veitch’s Composition,” which will kill aphids and red spider. But the plant, while being syringed, should be turned, and the syringe played against the back and front of the leaves all over it, so as to insure every portion of it being thoroughly moistened with the composition. It should be left to drain for an hour or so, and then be well syringed with clean soft water ; and it is advisable to do this early in the morning, and in a cool corner of the house ; for if the composition is allowed to dry on the foliage it will be difficult to wash it off thoroughly, and unless this is done the leaves will not be their natural colour. It can hardly be necessary to say that the plants should not be syringed with anything at a lower temperature than the atmosphere of the house in which they have been growing, or that they should not be taken into a cold house, or out of doors, to be dressed. I have used this composition upon *Ixoras* when they were only just set for bloom, and when they were almost in full beauty, and have never found it to injure them, nor to fail in clearing them of all aphid pests and red spider, and it will, by one dressing properly applied, effectually clear a plant of these of mealy bug ; and after having tried most or all of the receipts or compositions which have been offered during the last twenty years for the destruction of insects, I consider this the best. It is poured upon two pounds of soft soap, a quarter of a pound of tobacco, and a quarter of a pint of spirits of turpentine. This is corked tight in a jar, and left for a day or two, then strained through a muslin sieve, and kept closely corked till wanted for use. With the aid of this, keeping the plants clean is a mere question of labour applied when wanted ; and if the plants are kept free from insects, and afforded the temperature which I have recommended, they will thrive with the most ordinary management in other respects. But I will, for the benefit of those amongst your readers who may be inexperienced in the management of these, add an outline of their culture generally.

All the varieties are easily propagated by cuttings, but some of them, as *salicifolia*, *Griffithi*, and *acuminata*, are so wanting in the tendency to form

bushy plants, that well-furnished specimens of them can hardly be obtained, save by grafting them on good-sized well-bottomed plants of some better-habited variety. *Coccinea* is, judging from my own experience and observation, the best for grafting upon, and I use it in preference to *javanica* (Veitch's), which, although a freer grower, does not with me prove as good a stock as *coccinea*. I also graft *floribunda*, which, although of a sufficiently bushy habit, is rather delicate, and but a slow grower on its own roots; but there is no necessity to graft this upon large plants, and I propagate it by putting a single graft upon a plant of *coccinea* with a single shoot. Grafting these is very easily accomplished. I prefer doing it early in spring, although it may be done at any time; but I fancy that the sap flows more freely after the plants have had their winter's rest, and that the operation is more certain to be successful then than at any other season. The plants to be grafted I cut down, and clear off all weak shoots and such as are badly placed, and put on the grafts exactly as I would in the case of young fruit trees, only that I put on a graft on any bend, &c., where I think it likely to help to fill-up or form the plant, as well as on the point of every shoot. After grafting it is advisable to afford the plant a gentle bottom heat of from 80° to 85°, and it must be covered with hand-glasses, or something to keep it close and moist. For grafts I select well-ripened wood, and, save in the case of *floribunda*, one joint is sufficient for a graft. I neither clay nor wax the grafts—merely tie them on, and if the plants are kept close and moist almost every graft will take.

The varieties which are propagated by cuttings will require some attention to cause them to form bushy specimens, and some growers stop over-luxuriant shoots when they appear; but, save in the case of very small plants, I prefer to grow the plants as vigorously as I can for a season, then allow them a short period of rest, during which they are placed in a cooler and drier house for a few weeks, so as to get the wood well ripened; they are then cut back and tied into form, bringing the strong shoots down to form the bottom of the plant, as far as can be safely done, and they are again encouraged to make growth. Treated in this way, the plants will make two growths during the year, and such varieties as *alba*, *amboynensis*, &c., will bloom twice in the year; but they must be kept at work in winter, merely resting them for a few weeks while they are in bloom. But, save where it may be desirable to get the plants into large specimens as quickly as possible, I do not recommend driving them so as to cause them to make two growths annually; for when this is done they very soon get larger than, in most cases, is desirable for home use. When the plants are intended to be used for conservatory decoration, I aim at having them in bloom from the beginning of June to the middle of August, when they will stand the conservatory without any risk of their being injured, which they will hardly do save when the weather is warm, or when the house is kept rather close. To have them in bloom in June they should be cut back, and placed in the warmest part of the stove in January, and those intended for blooming in August may be put in from the middle to the end of March. They should be shaded from bright sunshine while making their growth, and afforded a moist atmosphere with plenty of water at the root; but when they have made sufficient growth the shading should be discontinued as far as can be done without danger of scorching the foliage, and the plants should be kept on the side of dryness at the root, giving air more freely against them. This treatment should be continued until the points of the shoots appear plump, without exhibiting any appearance of growth, which will generally be the case in about three weeks. They should then be freely watered at the root, and kept close and moist, and may be expected to show bloom at almost every point. This treatment is unnecessary save in the case

of the stronger-growing varieties, as *coccinea*, *javanica*, &c., and would be decidedly injurious in the case of such varieties as *alba*, *salicifolia*, and *floribunda*; for these, unless they are well attended to, and grown in a shady, warm, moist house, are apt to set for bloom before they have made sufficient growth to carry fine heads. When the plants are treated for blooming only once in the year, I remove them, when their beauty is over, to a house where the temperature will seldom fall below 55°, and winter them here, keeping them on the side of dryness at the root, only giving sufficient water to keep the roots and foliage in a healthy state. I cut back, tie out the shoots, and thoroughly clean the foliage just before starting the plants into growth.

As to soil and potting, a rather strong grassy peat is the best, and it should be used in a fresh fibry state, breaking it up rather finely, and adding about one-sixth part of silver sand. In potting, the fresh soil should be packed as firmly that the water cannot escape through this without moistening the ball. I generally repot a plant just before starting it into growth, giving about a three-inch shift, and plants which are driven to cause them to make two growths in the year are shifted twice in a year. In the case of plants which are considered large enough there is no necessity to shift them annually, and, with the aid of manure water, or occasional dressings of some concentrated manure, a plant may be kept in the most vigorous health for several years without repotting; and manure water, or frequent applications in small quantities of some concentrated fertiliser, will be found useful in the case of young plants which are being pushed on to form specimens as quickly as possible.

Nearly all the varieties of this genus which are now found in the trade lists of the leading nurserymen are well worth growing, but they are not all equally suitable for the decoration of the conservatory; for *coccinea* and *javanica* (Veitch's) will remain in beauty six weeks, while *alba*, and some of the other varieties which exhibitors find the most useful, will hardly stand half the time. For ordinary decorative purposes *coccinea* and *javanica* (Veitch's) are the most useful; but the latter has such a tendency to make wood that I cannot treat it so as to make certain to force it to set for bloom when I want it to do so without injuring other occupants of the house; and although this, when seen in good condition, is one of the most effective varieties, I have replaced it by *amboynensis*, which is very nearly the same colour, and if not as vigorous a grower, is as free a bloomer as *alba* or *salicifolia*, and makes sufficient wood to carry large heads of bloom, and soon makes a large-sized specimen, carries its bloom well, if not quite as long as *javanica*, &c.

For exhibition purposes *salicifolia*, *Lobbi*, and *alba* are my favourites; but *coccinea*, when well done, is probably equal to any of them. *Lobbi* is a vigorous grower, and blooms as freely as *alba*, and is a very easily managed and effective variety, but it does not last so long in beauty as *coccinea*; but with good management it may be had fairly covered with bloom. This and *amboynensis* are the most certain bloomers amongst the free-growing varieties, and ought to be in every collection. *Acuminata* throws very large heads of bloom, and I expect that, grafted on *coccinea*, it will form fine specimens, and be more effective than *alba*.

ALPHA.

THE ARAUCARIA IMBRICATA.

I HAVE not yet heard of young plants being raised from seed saved in this country. A large female plant here has produced a crop of cones these last

nineteen or twenty years regularly to that extent, that some years we are obliged to thin them out by scores. I have heard of its coneing at Kew and some other places; but have heard but little of the male plants, which are distinct, producing catkins. There is a fine male plant that has produced crops of catkins these last five or six years, and another which began to produce catkins last year for the first time. These are the only two male plants I have yet seen produce catkins here. The only other plant I ever saw with catkins was last year at Lady Molesworth's beautiful place at Pencarrow, Cornwall. In the splendid noble avenue of the *Araucaria imbricata* here on each side of the coach-road leading through one of the outer parks not one has yet produced either cones or catkins. There is no difference observable in the growth or appearance of either male or female plants of this noble tree, that I could ever yet discover one from the other previous to coneing or producing catkins, although it has been stated years gone by that there could be; and plants actually sent out by nurserymen under the name of masculine, which never yet proved themselves such, as I could ever discover or hear of. We have sown seed and raised plants home-grown here.

Unfortunately, this noble tree is not entirely hardy throughout Britain. The noble specimens that Elvaston, Chatsworth, and other noble places in the north and midland counties contained a few years ago are, by the late severe winters, injured, and to a great extent destroyed.

Bicton,

JAMES BARNES.

CANINO GROSSO APRICOT.

WITH AN ILLUSTRATION.

THIS is an Italian variety, from Canino, a town in the Papal States. Its habit is remarkably robust. Leaves large and of a very dark green, in shape much like those of the Royal Apricot. Shoots stout, remarkable for their vigorous growth and healthy appearance; and as far as can at present be judged, the tree is not liable to gum or its branches to die, as is so often the case with the Moorpark or Peach Apricot. Its flowers are large and bold, and seem to set their fruit freely. Fruit larger than the Royal, and, if there is any difference in that respect, a little later in ripening, of the same melting flesh and excellent flavour as the Peach Apricot, the finest of all. This variety is likely to be popular, as the tree is so hardy and free in its growth. It has hitherto been budded on the Black Damask Plum stock, which seems to suit it admirably, but it may, probably, succeed on the Muscle Plum; still, as the former is so well adapted to it, it would never be advisable to bud it on any other Plum.

Owing to its free growth, this variety should have a high wall; and it would, doubtless, ripen its fruit well on walls with a south-east or west aspect in the warmer parts of England. In Italy it soon forms a large umbrageous tree as a standard, and bears very freely. In some of the warm gardens near London or in the southern counties it would be very desirable as a standard, as it is earlier than the Breda, and its fruit, even when not thoroughly ripe, more melting and agreeable than that sort, which from standards is generally dry and hard, as any one who has bought them in the Belgian towns where they are hawked about in every street can testify.

It was introduced about seven years since by Mr. Rivers, of Sawbridge-worth, and our figure was taken from a handsome pot-tree in one of his orchard-houses.



Canino Grosso Apricot.

THE METROPOLITAN EXHIBITIONS.

ROYAL HORTICULTURAL SOCIETY, *February 25th*.—The meetings for 1863 have commenced, and the "Great Society" has led the way. In one of the refreshment-rooms situate on the corridor of the great Exhibition building, overlooking the grounds of the Horticultural, was the Show held. A glimpse of the interior of the building lately so full of life and the creatures of skill and genius could be had here—now as quiet and still as a catacomb. "Our revels now are ended," and the whole length of the "dazzling colonnade" that anon gleamed

"With cross and fountain, bell and vase,
In vistas bright,"

was as an empty stage from which a mighty exodus had taken place.

Hyacinths and spring flowers were the objects of interest on this occasion. The former were not so good as last year; still some grand spikes were staged. With twelve varieties, Messrs. W. Cutbush & Son, Highgate, were first, having of shades of Blue, Baron Von Tuyll, Garrick, General Havelock, and Grand Lilas; of Reds—Macaulay (a splendid flower), Princess Clothilde, and Von Schiller; of Whites—Mirandoline, Snowball, and Mont Blanc (pure white); Blush White—Grandeur à Merveille; and Ida, canary yellow, but not so well coloured as last year. Second, Mr. William Paul, Waltham Cross, with Mimosa, General Havelock (very rich, much deeper in colour than the same variety in Messrs. Cutbush's stand), Charles Dickens, Mario (deep purple-blue, streaked and suffused with white), Grand Lilas, and Baron Von Tuyll—all shades of Blue. Of Reds there were Howard, Princess Clothilde, and Solfaterre (a magnificent spike); and Queen of the Netherlands (pure), and Lord Wellington (double), Blush Whites. The collections grown by amateurs were staged for prizes offered by Mr. James Cutbush, of Highgate: Mr. A. Carr, gardener to B. Noakes, Esq., of Highgate, was first, with good spikes of Charles Dickens, Grand Lilas, Baron Von Tuyll, and Garrick—shades of Blue; Von Schiller, La Dame du Lac, Princess Clothilde, Howard, and Madame Hodson—Reds; Alba Maxima, Mont Blanc, and Grandeur à Merveille—Whites. Second, Mr. G. Taylor, gardener to C. A. Hanbury, Esq., East Barnet, with Garrick, Van Speyk, Orondates, Mimosa, Laurens Koster, and Couronne de Celle—Blue; Macaulay, La Dame du Lac, and Cosmos—Red; Lord Wellington, Mont Blanc, and Grandeur à Merveille—White.

Messrs. Cutbush & Son were also first with twelve pots of Tulips in six varieties, admirably grown and flowered. They consisted of Couleur Cardinal, and Vermilion Brilliant, both fiery reds; Rouge Luisante, Proserpine, Fabiola, and Keizerkroon. Second, Mr. W. Paul, with Coligny, Keizerkroon, Le Matelas, Couleur de Cramois, Pieter d'Hooge, and Bakhuizen. In the Amateurs' Class for twelve pots in four kinds, Mr. Young, gardener to R. Barclay, Esq., Highgate, was first with Tournesol, Scarlet Van Thol, Royal Standard, and White Pottebakker. Second, Mr. A. Carr; and third, Mr. Blogg, gardener to J. P. Gassiot, Esq., Clapham Common.

A large collection of Crocuses were staged by Messrs. Cutbush & Son, that appeared as if they had been lifted from the earth that morning, as globules of dew were observed on the petals of many of the flowers. The roots were also covered with green moss, which set off the groups to the best possible advantage. The leading varieties in this collection may be thus classed:—Yellows—New Golden, and Sulphureus; Blue—Agrippa, Lord Byron, Harold, Prince Albert, and David Rizzio; Dark-striped—Keizer Alexander, Pourpré Superbe, Brunel, Bleu Azure, Lilaceus Superbus, Martinet, No Plus Ultra, and Grande Vidette; Light-striped, Albion, La Majesteuse, Versicolor, Elfrida, Margaretta, Thalia, and Matilda (two very pretty kinds, the latter the darker of the two), and Sir Walter Scott (the best of all the striped kinds); of Whites there were Calypso (cream-coloured), Cœur de Léon (a beautiful variety suffused with blush), Lina, Malvina, Queen Victoria, and Hebe. Second, Mr. W. Paul, with a group in pots, consisting of Cloth of Gold and Large Yellow, David Rizzio, Sir J. Franklin, and Prince Albert—Blue or Purple kinds; Albion, Argus, Sir W. Scott, and Amazon—Striped kinds; and Marie d'Ecosse, a beautiful White variety). A collection also came from Mr. Blogg, consisting of David Rizzio and Prince Albert, Purple; Sir Walter Scott, Lord Palmerston, and No Plus Ultra, Striped; Albion and Mammoth, White varieties.

Mr. James Veitch, of Chelsea, was first with a collection of forced flowers, among which were Azaleas Etandré de Flandres, white with carmine stripes; Rubens, rich fiery scarlet; and Pelargoniflora; Amaryllis; Lily of the Valley; Rhododendrons; Ribes sanguineum album; a double-flowering Chinese Peach; a standard Wistaria sinensis; and two large panfuls of Grand Vainqueur and Charles Dickens Hyacinths; and some gay masses of Dielytra spectabilis. Messrs. Cutbush & Son were second with Azaleas Striata and Exquisita, Polygonatum multiflorum, having numerous drooping spikes of greenish-white flowers; Rhododendrons, Kalmia latifolia, Tulips, Narcissus, &c.

Lilies of the Valley were shown by Messrs. Veitch and Salter, of Hammersmith; the latter having the gold-striped foliaged variety.

Some collections of splendid Chinese Primulas were produced, immense trusses of flower combined with the finest quality. Mr. G. Taylor, gardener to C. A. Hanbury, Esq., East Barnet, was first; Mr. J. Todman, gardener to R. Hudson, Esq., Clapham Common, second; and Messrs. Cutbush and Mr. R. Blogg equal third. With double Primulas, Messrs. Cutbush & Son were first, but they seemed to lose all attraction by the side of the gay pyramids of the single kinds.

In the Miscellaneous Class were two splendid groups of Hyacinths from Messrs. Cutbush and W. Paul. Among them were fine examples of Laurens Koster, Baron Van Tuyll, La Nuit, Prince of Saxe Weimar, Bleu Mourant, Baron Van Humboldt, William I., Argus, Prince Albert, and Mimosa—Dark Blues; Orondates, Regulus, Charles Dickens, Van Speyk, Sir C. Campbell, Grand Lilas, Garrick, Pieneman (very large, better style of Couronne de Celle), Leonidas, and Couronne de Celle—all light varieties; of Dark Reds there were Victoria Alexandra, Lady Sale, Pelissier, Reine des Jacinthes, Lina, Howard, Solfaterre, Macaulay, and Von Schiller; of Pinks there were Madame Hodson, Duchess of Richmond, La Prophète, Queen Victoria, La Dame du Lac, Susannah Maria, Mrs. Beecher Stowe, Princess Charlotte (a pleasing delicate rose with green tips), Milton and Cosmos. Mauve kinds were represented by Haydn; Yellows, by King of Yellows and Duc de Malakoff, nankeen, with reddish stripes. Blush varieties were represented by Lord Wellington, Grandeur à Merveille, Gigantea, and Tubiflora; and of pure Whites there were Madame Van der Hoop, Prince of Waterloo, Alba Maxima, La Tour d'Auvergne, Mont Blanc, Queen of Netherlands, Mirandoline, Paix de l'Europe, Orondates, and Miss B. Coutts. A large collection of Tulips in pots came from Messrs. Cutbush & Son; some splendid cut Camellias from Mr. W. Paul. Some pretty Cyclamens from Messrs. F. & A. Smith, of Dulwich, who also had seedling Cinerarias, among which Sunbeam, having a deep bright purplish-crimson margin on a white ground and dark disk, was very attractive; also sprigs of *Monochaetum sericeum multiflorum*, and a small collection of stove and greenhouse plants. Mr. W. Bull, Chelsea, had a group of new plants. A group of flowering-plants were also furnished by Messrs. Veitch & Son; and a large collection of Hollies came from Mr. W. Paul. Not the least interesting feature in the Exhibition was a boxful of beautifully-coloured bracts of *Bougainvillea speciosa*, forwarded that morning to Mr. Eyles by Mr. Wainwright, gardener to W. C. C. Thornhill, Esq., of Kettering. The brilliancy of the colour was something wonderful at this comparatively unseasoned of the year.

A large force of the Floral Committee were busily engaged on new plants and flowers. These contributions comprised foliage of variegated *Araucaria imbricata* from Mr. Fowler, gardener to the Earl of Stair; *Cyrtopodium Dayanum* from Borneo, with handsome variegation, from J. Day, Esq., Tottenham; *Yucca limbata lutea* (a fine yellow-striped variety from Mexico), and *Trichomanes anceps*, both from Mr. Bull, Chelsea; *Azalea President Clarke* (bright salmon with white edging), and *Barkeria Skinneri spectabilis*, from Messrs. Veitch & Son—all these received first-class certificates. Certificates of the second class were awarded to *Limatodes rosea* var. *alba*, from Moulmein, shown by Messrs. Low & Co.; and *Anaetochilus argyrea*, a Brazilian narrow-leaved variety from Mr. Bull; a variegated *Hibiscus*, received from New Caledonia by Messrs. Veitch & Son, was also highly commended; and the same firm received a special certificate for an interesting collection of varieties of *Lycaste Skinneri*. Mr. R. Parker, of Tooting, sent a well-flowered plant of his beautiful hybrid *Rhododendron Countess of Haddington* that received a first-class certificate at a corresponding exhibition last year; and some pretty *Cinerarias* came from Mr. Wiggins, of Isleworth, but not possessing first-rate properties. Some considerable amount of interest attached to some cut flowers of *Helleborus olympicus*, from the garden of Dr. Lindley at Acton, said to be very hardy, and having large white flowers deeply suffused with pink; and also to *Parochelus communis*, a kind of Shamrock, with azure blue pea-shaped flowers, said to be of value as a basket plant.

A very interesting exhibition of artificial flowers, formed of rice paper, and tastefully arranged in alabaster vases, was shown by Mrs. Stodart, the correctness of the imitation being surprisingly apparent. And not only the flowers, but the foliage also closely resembled the originals; and being tastefully arranged, this added greatly to the effect of the whole.

ROYAL HORTICULTURAL SOCIETY, *March 18th*.—This was another admirable Exhibition, especially of Hyacinths, which were in strong force nearly the whole of one side of the room, having these and Tulips for its occupants. The class for eighteen varieties brought out Messrs. Wm. Paul and Cutbush in closest rivalry, and introduced us to a new competitor in the person of Mr. Carstairs, of Edinburgh, who had some very good flowers indeed, that appeared to have travelled the long journey without taking the slightest harm. Mr. W. Paul had, of Blue varieties, General Havelock, Baron von Tuyll, Marie, and Grand Lilas; of Reds, Solfaterre, Macaulay, Howard, and Von Schiller, deep-coloured varieties; of lighter shade, there were Florence Nightingale, l'Ornement de la Nature, Cavaignac, and Lord Wellington; of Whites, Snowball, Mont Blanc, and Grandeur à Merveille; Haydn, a mauve-

coloured variety; and Duc de Malakoff, buff, with reddish stripes. Messrs. Cutbush & Son had Garrick, Charles Dickens, Grand Lilas, and General Haylock, shades of Blue; Solfaterra, Victoria Alexandrina, Koh-i-Noor, Florence Nightingale, Macaulay, and La Prophète, Reds; Gigantea, Grandeur à Merville, and Lord Wellington, Blush; Seraphine, Snowball, and Alba Maxima, pure White; Ida, Yellow; and Haydn, Mauve. Mr. Carstairs had Lord Palmerston, Charles Dickens, Baron von Tuyll, Prince Albert, and Grand Lilas, shades of Blue; Florence Nightingale, Agnes, Veronica, Princess Clothilde, Macaulay, and Mrs. B. Stowe, Reds; Amphion, claret colour, quite novel; and of Whites, Mont Blanc, Mirandoline, Lord Wellington, Grandeur à Merville, and Seraphine. In the Amateurs' Class for twelve varieties, Mr. Carr, gardener to B. Noakes, Esq., Highgate, had Charles Dickens, Argus, Grand Lilas, Howard, Von Schiller, Mrs. B. Stowe, Queen Victoria, Lord Wellington, Grandeur à Merville, Madame Van der Hoop, (white), Mont Blanc, and Aurora (a buff variety). Mr. Young, gardener to R. Barclay, Esq., of Highgate, had Prince Albert, Grand Lilas, Princess Alice, Blue; Howard, Cosmos, Koh-i-Noor, La Dame du Lac, La Prophète, Mont Blanc, Miss B. Coutts, Grandeur à Merville, and Lady Franklin, delicate blush with pink stripe. The Class for six new kinds of Hyacinths had three competitors. Mr. Paul had Florence Nightingale, Macaulay, and Koh-i-Noor, Red; Snowball, White; Haydn, Mauve; and Duc de Malakoff, Buff. Mr. Cutbush had Feruk Khan, new of 1862, single purple-blue, small bells, a close but narrow spike; Fair Maid of Denmark, new of 1862, single pure white with large bells; Rouge Éclatante, new of 1862, a semi-double rich fiery red, medium spike; Maria Theresa, new of 1862, single delicate pink with red stripe, good close spike; Prince of Orange, single pink, striped and suffused with red; and San Francisco, new of 1862, single, bright canary yellow, good close spike. Mr. Young had Macaulay, Victoria Alexandrina, Reine des Hyacinths, and Von Schiller—all Reds; Paix de l'Europe, White; and Regulus, Blue. Two large collections were also staged by Messrs. Cutbush and Paul. In addition to the varieties before named, Mr. Paul had of shades of Blue, Lord Raglan, double; Leonidas, and Bleu Aimable; of Reds, l'Ornement de la Nature, Koh-i-Noor, Aurora Rutlans, deep fiery red; Prince of Orange, and Susannah Elizabeth; of Whites, Seraphine, and Prince of Waterloo. In Mr. Cutbush's collection were the following varieties not so well known: of shades of Red, Amy, very bright, Noble par Merite, Desdemona (very deep colour), Circe, and Johanna Christina, blush with red stripes and somewhat novel; of Whites, we noticed Elenora, Mammoth, Fair Maid of Denmark, and Paix de l'Europe; of Blush, Lady Franklin; of White, Sir Bulwer Lytton (double), Elfrida, and Voltaire, and Aurora, buff with pink stripes. In class 11, Mr. Young and Mr. Carr both exhibited. Three bulbs of Hyacinths were allowed in each pot. They were of well-known kinds, and Mr. Carr's, being in the largest pots, made the best display.

Tulips were shown by nurserymen in classes of twenty-four and eighteen pots, six kinds being necessary in each case. In the larger number Messrs. Cutbush had Vermilion Brilliant, Thomas Moore, Duc d'Arenberg, Rouge Luisante, Cramoise, and Grand Duc. Mr. Wm. Paul had Proserpine, Grand Duc, White Pottebakker, Canary Bird, and the two varieties of Tournesol. In the smaller group Messrs. Cutbush had Vermilion Brilliant, Fabiola, Duc d'Arenberg, Mathilda, Rouge Luisante, and Florida. Mr. Paul had Rouge Luisante, Royal Standard, Cottage Maid, Archduke d'Austrie, Van der Neer, and Red-striped Pottebakker. In the class for amateurs with twelve pots in four kinds, Messrs. Carr and Young again contended, their varieties being among those just named.

Messrs. Veitch & Son were first with six Camellias in flower, having Madame Lebois, Bella di Firenze, Comte de Paris, Teutonia rosea, Fimbriata, and Alba plena. Mr. Hally, of Blackheath, had Carminata, Amabilis, Imbricata, Elegans, Ophine, and Countess of Derby. Of four kinds Messrs. Veitch & Son exhibited Triomphe de Loddi, Allanea, Amelia Benucer, and Alba plena. The same were also first with one specimen, having Baccocchi, salmon red, with white stripes. Mr. J. Salter, of Hammersmith had Elegans, rosy salmon. A few Rhododendrons were produced by one or two exhibitors; the classes for six and four kinds did not seem to be filled-up. Messrs. Veitch & Son had a fine specimen of Rhododendron Smithi superba that towered up above its neighbours, the deep bright red trusses of flower being a most conspicuous object.

Special prizes were offered by the Society for the three best Camellias, and for three best tree Mignonettes. For the first-named Messrs. Veitch & Son were the only exhibitors, having fine plants, well bloomed, of General Lafayette, Valtevarado, and Countess of Orkney; the other was one of considerable interest, and produced four competitors. Mr. John Richards, gardener to Lord Lonsborough, Tadcaster, was first with three good specimens, having wonderful heads, when it is considered it is only a twelvemonth since the seeds were sown. Mr. J. Holloway, gardener to R. Dobree, Esq., Walthamstow, was second, having smaller specimens, but remarkably well grown and flowered. T. D. Shafto, Esq., of Hurston, Kent, and Mr. George Morrison contributed specimens in the form of pyramids that had been nicely managed.

A large quantity of contributions were staged in the Miscellaneous Class, and for the

inspection of the Floral Committee. Messrs. Paul & Son and W. Paul had boxes of cut Roses: the latter also had cut Camellias, and pots of Tulips. From Messrs. E. G. Henderson & Son came specimens of *Hebeclinium atro-rubens*, and *H. macrophyllum*, loaded with flowers; also *Epaeris Viscountess Hill*, a dull Indian-red-coloured variety, but remarkably free-flowering. Messrs. F. & A. Smith had some pretty *Cyclamen persicum*, a basket of their beautiful double white *Azalea Flag of Truce*, that will "tell" as an exhibition variety; *Hemerocallis elegans auro-variegata*, to which was awarded a special prize; some beautiful double Chinese *Primulas* of purple, blush, and white colours, glorying in a multiplicity of names, as for example, *Primula prænitens fimbriata flore pleno rubra grandiflora*; *Fuchsia tricolor*, sea-green foliage, red marking, and edging of yellow, after the style of *F. Meteor*; two pretty double *Azaleas*, *Roi des Doullers*, deep rose; and *Thusnelda*, light purple; and two single varieties—*Charles Enk*, variegated; and *Magnet*, a bright salmon red; and some stove and greenhouse plants, a bright salmon red. A beautiful collection of *Amaryllis* was shown by Messrs. Cutbush & Son. From an exhibitor, whose name we failed to notice, came six plants of *Primula denticulata*, with numerous trusses of pale lilac flowers with yellow eye.

Collections of new and rare, and of ornamental-foliaged plants came from Messrs. Veitch, Bull, and J. & C. Lee; the latter also having a box of cut Camellias. Messrs. Dobson and Son, Isleworth, staged a batch of their new rosy-crimson self *Cineraria Conqueror*, and a group of seedlings, among which were *Princess of Wales*, having a narrow rosy purple edging to a pure white ground, and a dark disk, a flower of very fine form; *Peep o' Day*, a bright crimson self; and *Landseer*, a fiery deep crimson edge, white ground, and dark disk, a small flower, but novel and striking. Mr. C. Turner, of Slough, had seedling *Cinerarias* John Spencer, a large bright crimson self of fine form; and Mr. Harvey, a deep purple-edged variety, white ground and dark disk, also of fine form. Another seedling from Mr. Wiggins was also noticeable—*Bridal Wreath*, a crimson purple self with narrow white ring round a light disk, a large flower of very fine form.

Of newly-introduced plants, Mr. Bull had *Trichomanes spicata*; *Nephelaphyllum cordatum*, having bright sea-green leaves, with light bronzy marking; *Begonia Sécretaire* Morren, a handsome silver-leaved variety; the variegated *Yucca Stokesi*; *Funkia univittata*, with broad yellow stripes on its emerald leaves; and three varieties of seedling horseshoe *Geraniums*, one named *Beauty* being very striking, having well-formed bright orange scarlet flowers, with large white centre.

Mr. R. Parker, of Tooting, had *Tropæolum Vivid*, a climbing variety for greenhouse; *Hebeclinium atro-rubens*; and cut flowers of *Rhododendron Countess of Haddington*. From Mr. Standish, of Bagshot, came two varieties of *Skimmia japonica vera*, male and female, from Japan, and another variety loaded with flowers. Mr. Standish hopes to succeed in fruiting the female plant during the next summer. From Mr. Jean Verschaffelt, of Ghent, came *Azalea Souvenir de Prince Albert*, a semi-double pink with white edges. Messrs. J. & C. Lee also had *Camellia Napoléon III.*, pinkish-salmon edged with white; and *Rhododendron Romain de Smet*, delicate pink with small crimson blotches. Messrs. Veitch and Son also had plants of *Pandanus elegantissimus*. Some beautiful sprigs of *Bougainvillæa speciosa* were sent by Mr. Daniells, gardener to the Rev. C. R. Keene, Henley-on-Thames; And a dish of variegated *Borecole*, for garnishing, was furnished by Messrs. Carter & Co.

A gloomy foggy morning gradually changed into a fine and sunny day, which drew together a large company, including the distinguished visitors from Denmark, who were accompanied by some members of our own Royal family.

Quo.

DOES THE KITCHEN GARDEN KEEP PACE WITH THE FLOWER GARDEN?

DOES the kitchen garden keep pace with the flower garden, and does the culture of vegetables advance in the same ratio as that of fruits and flowers? One would think it ought, but there are reasons for believing that it does not. To every one who inquires for, or makes any improvement in, the kitchen garden, there are ten or more who seek improvement in the flower garden, the greenhouse, or the fruit garden. Nor do horticultural shows prove anything to the contrary. Make your way into the tents, and you will perceive that the flowers are fine, the fruits are good—but the vegetables, where are they? They will probably be found occupying a portion of a small tent, or a few baskets may be placed under the benches of a large one, as though they were merely there as an apology and not to be seen; but then you will say, A basket of vegetables is not so handsome as a collection of Orchids, nor are Potatoes so pretty as Heaths. Perhaps not, but I hope I may not be put under a ban of displeasure if I regard this as an outcry from those who can see no beauty except in colour, and who totally disregard form. I may differ from many, but I make bold

to assert that form is as much entitled to regard as colour. Vegetables may not possess the one, but they do possess the other, if well grown, to an extent that entitles them to a place in the exhibition. Their appearance may not be so striking to the mass of visitors; but, as examples of the really useful part of garden produce, it is time a turn was taken in their favour.

To effect this there are certain points which ought to be taken cognisance of; and certainly the mode in which vegetables are packed for exhibition is no indication of the good taste of the exhibitors, nor are the baskets in which they are exhibited, either in form or material, perfect specimens of artistic design or skilful manufacture, neither are the vegetables packed in them in the most scientific manner. These are points which might be easily remedied by offering prizes for not only the best packages, but those packed in the best manner and those in the best form of case or basket, and those stipulated to be of a suitable material; and then, again, something ought to be said about the arrangement in packing them—bedding them neatly in moss or other material, giving each lot a suitable space, and grouping them in some natural order, as edible-rooted vegetables by themselves, leguminous crops in another group, cruciferous in another, and so on. These are merely suggestions that those who know more about exhibiting than myself will know how to deal with. My present purpose is more to advocate the growing than the showing of vegetables, feeling assured as I do that there is abundant room for improvement in the kitchen garden, and that some reform is wanted there, in order to keep pace with the times, and not let the more showy department of gardening absorb all public and nearly all private attention.

My own practice has been very much on the north side of London, in gardens of two or three acres in extent, all of which have a part appropriated as a kitchen garden, and I must say that the system generally pursued does no great credit either to the gardeners, the masters, or the age. The same routine followed now as was followed fifty years ago. The same trees and hedges that were planted then to screen and hide the kitchen garden are still there, closing round it and overshadowing it until the available space is grown small indeed, and that unable to produce a good serviceable crop of anything. The same method of surrounding the quarters with Gooseberry and Currant bushes, the same routine of using stable-dung for hotbeds, and then, again, as dressing for the ground year after year; and though roots club, canker, and rot, and very little is produced, still the ground is cropped and re-cropped every year on the principle that a bad crop is better than no crop. How far this condition of affairs exists in other parts of the country I am not aware; but where it exists at all something ought to be said or done to alter it, if only for the credit of gardeners, their profession, and the owners who can tolerate such a state of things.

Now, I happen to think that not only a certain amount of talent, sound judgment, and mechanical skill may be fully exercised in the kitchen garden, but that science itself may find ample scope for exercise in the departments of chemistry, botany, entomology, &c., and that no other department in gardening offers a wider, a better, or a more useful field for observation and experiment than is offered in the kitchen garden. True it is that new and improved sorts of vegetables are produced from time to time; but to produce an annual crop of them as they are represented at first is another question. True, better vegetables as to flavour and other qualities can be grown now than could be grown fifty years ago; but there are counteracting influences at work now that were not in operation then, at least not to the same extent. Soil that has been heavily worked, cropped, and stimulated for fifty years must and does give indications that a change is necessary. When crops fail from club, canker, mildew, &c., and the soil shows a sheer inability to withstand the heavy drain upon its resources, then does not common sense show not only the policy but necessity of making some alteration, and prove that a change of purpose, like a change of employment in man, may restore an equilibrium?

I have noticed this in many and believe it exists in thousands of gardens that are not the largest, where a corner has been divided from the rest of the ground, and, enclosed and hidden out of sight and smell for the purpose of growing all that is required for the table, the said corner, though limited in extent to the smallest possible compass, is required to do duty as orchard, fruit, and vegetable garden, from the time of laying out the grounds, be it fifty years or a century ago, or even more; and though at the present day trees are worn out and diseased and the soil exhausted, yet no radical change can be accomplished, for the owner will not, cannot, or does not see that any other portion of his ground is applicable to the site of a kitchen garden. No, there the kitchen garden was first made, there it has been, there it ought to be, and there it must be. To change its position is out of the question. Bad kitchen-gardening proceeds, things that are grown there are barely fit for the table, and far less so for the exhibition; and here may be one of the principal causes why more baskets do not find their way there. But, for all that, I believe the production of good vegetables, even in suburban gardens, in cottage gardens and allotments, is possible, and it is desirable that a stimulus be used, or at least that some inducement be given for people to

excel in the growth of vegetables as they do in that of fruits and flowers, and that the former receive an equal share of attention with the latter, and that gardeners may be given to understand that Fuchsias, Ericas, and Geraniums are not the only things on which skill and time may be profitably expended, or that the production of fine flowers alone may claim the reward of real merit.

It may be supposed that there is more hard work attached to the management of culinary crops than to that of conservatory plants, and that the kitchen garden is a grade below the flower garden, for even in the garden there is a feeling somewhat akin to what is known as snobism, expressed and exemplified in certain jeering allusions to cabbage-yielding, and the dignity of being exempt therefrom—a feeling which the really intelligent never did and never will entertain. But still other chaff is thrown over the hedge, and we may be told that the kitchen garden is not pleasant to the eye or fair to look upon, that its beauties are not supreme, and that its odours are not those of frankincense and myrrh, nor the smell thereof as the smell of a blessed field. Oh, my friends, say no more on that point, for have I not been in the garden of herbs, where dwell Industry and Care that is not dull, and admired the order and precision prevailing there—the Leeks and the Lettuces neatly arranged in lines that never meet, the varied shades and tints, and the many blossoms, making up one harmonious, eye, and beauteous whole? and have I not smelt the fragrance of the Thyme and the Savory and all that give their odours to the wind and the nostrils, and thought them all very good? and have I not seen the garden of the cottager looking bright and sunny as a field in May, and felt irresistibly drawn towards it and a strong desire to ask a blessing on it? And now I bethink me of a portly old gentleman who used to take his daily walk around his kitchen garden (and, in truth, he had no other garden to walk in, having reversed the usual arrangement and elevated the whole of his ground, with the exception of a very small portion indeed, to the culture of fruit and vegetables), bestowing affectionate glances on the new Potatoes and young Carrots, and thinking how well they would look on the table steaming fragrantly beside the goodly joint, who would behold lovingly the Cauliflowers and Peas in prospect of a nearer acquaintance, who would gaze with the utmost complacency on the promising crops of Peaches, Plums, and Apples—who encouraged the arts relative to the manufacture of garden requisites, and bought nets, covers, guards, &c., that the feathered tribe should not pilfer his fruit, but be content with the grubs or go to his neighbours; and who maintained that the art of cultivating things good for food was the noblest art in the world, and he for one should give it his entire support. Think not that this individual was purely ethereal, or that I have conjured him up from the realms of fancy, for was he not of the household of faith, placing unlimited confidence in things visible and temporal, partaking joyfully of the good things set before him, enlarging upon their excellencies until it became needful to make an extract of crescent form from the polished wood that held the savoury viands that the friendly intercourse between himself and them might proceed uninterruptedly? And was he not a knight of the square table? for in truth a round one would have left little room for the dishes after the needful extract had been made.

Seriously, are not the beauties and utilities of the world inseparable? We find them so in nature. Take the living form—the human form, if you will—bestow one glance on the outline, and what form can be more beautiful? Then notice how the members are placed—just where they should be; how the bones, the muscles, and the sinews are adapted to each other, producing a combination of beauty and utility that cannot be surpassed. It is the same in all that is usually denominated as the work of nature. The tree, the plant, the flower, the world, and the universe in which the world we inhabit is but an atom—the useful and the beautiful are combined, and not only so, but the more we multiply the beauties, the utilities are increased in the same ratio. We can see the beauty of the flower and its use is not hidden. Examine the flower closely, investigate its parts, each one is beautiful in itself and each has its particular use—the petals, the stamens, and pistils, and even the parts of those parts, the beauties are immediately apparent while the uses are as readily discovered.

What is the object of scientific investigation and research if not to penetrate into the mysterious workings of nature and adapt the knowledge thus gained to purposes of everyday life? And is it not the province of art to give a practical form to the knowledge thus gained? Both are wanted in the garden, both may find increased employment and enter new fields of discovery and adaptation. Meanwhile, I would strongly urge a further blending of the useful and the beautiful in the garden. The highest standard of beauty is not approached by the gaudiest of colouring or the most elaborate pattern. Simplicity is Nature's own standard, and from Nature we get beauty and utility combined, and every work of Nature is a thing of beauty and always has its place and purpose. It may be worth while to bear this in mind, for all the best works in art are copied from nature. And why should it not be so in the garden? Surely Nature never taught us to make such a wide distinction between the flower garden and kitchen garden, or to consider one as a place sacred only to beauty and pleasure, and the other only to utility and labour. Let us break down the barriers that

separate and blend what is useful with what is good. Oh! my young friends of the blue apron, follow if you will the advice of the poet, and walk day and night with the beautiful, spread out your fostering arms and shelter the innocent Lilies; but do not, oh! do not forget the useful Beans.

F. CHITTY.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 38.)

RHODODENDRON COUNTESS OF HADDINGTON.—Mr. Parker, Tooting: First-class Certificate, March 19.—A dwarf bushy vigorous-habited variety, evidently bred from *R. Dalhousie*, the leaves small, stout, dark green, convex-ciliated; the flowers large, long-tubed, of great substance, somewhat drooping, and of a delicate blush white.

RHODODENDRON DENISONII.—Mr. Bousie, gardener to Lord Taunton, Stoke, Slough: First-class Certificate. April 9.—A hybrid raised "from *R. Dalhousie*, crossed with mixed pollen of *R. Edgeworthii* and *R. Gibsoni*." It is a very fine variety, lacking fragrance; the leaves flattish, elliptic-oblong; the large, long-tubed campanulate flowers pure white, with a lemon stain towards the base.

RHODODENDRON LADY BOWRING.—Messrs. Veitch & Son: Second-class Certificate, May 21.—A fine hardy sort; flowers shaded, rosy pink, the upper segment finely spotted; good trusses.

RHODODENDRON LADY LOPEZ.—Messrs. Veitch and Son: Commendation, May 21.—A hardy variety, the flowers in moderate trusses, pale lilac; the upper segment blotched with deep chocolate.

RHODODENDRON McNABII.—Mr. Bousie: Commendation, April 9.—A hybrid from *R. ciliatum*, crossed with *R. Edgeworthii*. Not so fine as *R. Princess Alice*, but a handsome, dwarfish plant, with smooth, elliptic leaves, and large blush white shortly campanulate flowers.

RHODODENDRON OCHROLEUCUM.—Messrs. Veitch & Son: Second-class Certificate, May 21.—A distinct hardy variety, of fine habit; the flowers large, creamy white, the upper segment spotted with green.

RHODODENDRON PRINCESS ALICE.—Messrs. Veitch & Son: First-class Certificate, March 19.—A hybrid raised between *R. Edgeworthii* and *R. ciliatum*, of dwarf habit, with clean-looking, small, flat leaves, and moderate-sized, bell-shaped flowers; white, with a flush of pink outside, and delicately scented, like those of its parent, *R. Edgeworthii*.

RHODODENDRON SESTERIANUM.—Messrs. Veitch & Son: First-class Certificate, March 19.—A fine hybrid, of rather tall habit, with convex, oval, oblong, acute leaves; the flowers pure white, about three in a head, very large, and much expanded, with broad, rounded, obtuse segments. Between *R. Edgeworthii* and *R. Gibsoni*.

(To be continued.)

JUDGING DAHLIAS.

In your last Number a person signing himself "V." has thought fit to make a cowardly, and what I shall prove to your readers to be a most untruthful, attack on my character as a Judge of Dahlias. During the last ten years (if memory serves me right), I have been but three times a Judge in the classes in which Mr. Keynes has been an exhibitor—St. James's Hall, Reading, and at South Kensington last year. At only one of those places was Mr. Keynes placed first.

At Bishop Auckland last year I exhibited Dahlias for Mr. Keynes, and, therefore, could not have been a Judge on that occasion.

I now take my leave of "V.," by telling him that slanderers ought to have good memories.
Ashton Court, Bristol.

W. DODDS.

CALENDAR OF OPERATIONS.

CONSERVATORY.

Now that the plants have commenced growing, pay the greatest attention to all their wants. Shift at once any that may require a larger pot. Be careful not to overwater newly-potted plants. Maintain a moist growing atmosphere by occasionally sprinkling the paths and vacant parts of the house, and syring-

ing lightly plants not in flower. These should be done at times when the house is not likely to be visited. Ventilate freely in fine weather, but in bad weather guard against cold draughts, as delicate flowers are soon injured. Unless in case of cold frosts or very dull wet weather, fire heat will scarcely be required. Remove every plant as soon as the

flowers begin to fade the least, and replace them with plants coming into bloom. Do not suffer a decayed flower or leaf to be seen in the house. Pay the greatest attention to cleanliness.

GREENHOUSES.

HARDWOODED PLANTS.—*Acacias*, *Epacris*, *Pultenaeas*, *Genistas*, *Hoveas*, *Chorozemas*, *Boronias*, &c., will now be in flower. They should be effectively arranged, and have every attention necessary paid to them. In mild weather they should have plenty of air, and they will require liberal supplies of water. As they go out of bloom, pick off all the decaying flowers and seed-vessels. Proceed with the shifting of all plants that require it. Most of the plants that were potted last month will now be growing freely, and should be stopped and properly tied-out. Keep a growing atmosphere, give air freely in fine weather, and attend well to the watering. **SOFTWOODED PLANTS.**—*Pelargoniums*.—The early-flowering plants must now be well attended to in watering. Keep the shoots properly tied-out, and ventilate freely every favourable opportunity, avoiding cold draughts. The late-flowering plants should be carefully tied out. Syringe occasionally, and shut up early to promote free growth. Fumigate frequently to keep the plants clear of green fly. *Scarlet Pelargoniums*.—These should now have every encouragement to promote free growth. Cuttings struck now and kept in small pots will be useful in the autumn and winter. *Cinerarias*.—Specimen plants coming into flower should be well watered, and occasionally with a little weak liquid manure. In very bright weather they should be shaded for a short time during the heat of the day. Pot-off the seedling plants as they are fit, and attend well to them. *Calceolarias*.—Any that require it should now have a final shift. Water carefully. Give air freely, and fumigate frequently to keep down the green fly. *Fuchsias*.—These should now have their final shift. Use a compost of loam, peat, decomposed cowdung, and sand. Keep the plants well stopped. They will not require much watering until they begin to root into the fresh soil. Syringe daily. Shade a little in bright weather, and give air freely every favourable opportunity.

STOVE.

Attend to the regular shifting of all strong free-growing plants that require frequent repottings. Keep them well stopped and tied-out. Give the plants plenty of room. Attend well to the watering. Syringe daily, and ventilate freely in mild weather. Pot *Gesneras* and *Achimenes* for late flowering.

PITS AND FRAMES.

These are excellent structures for gradually preparing the different kinds of "bedding" plants for the open ground. Pot-off spring-struck cuttings as soon as they are rooted. Keep them close for a few days, and when they begin to make fresh root give them air more freely.

FLOWER GARDEN.

Sow hardy annuals. Finish pruning *Roses* as soon as possible. Those lately planted should be well watered in dry weather. Get alterations completed as soon as possible, and prepare the beds. Renew the soil altogether where necessary, and work-in a little leaf soil or rotten manure where wanted. Let everything be in proper condition before planting-out time arrives. Attend well to rolling and mowing of the grass, so as to lay the foundation for a neat close turf during the season. *Pleasure Grounds*.—*Hollies* or other evergreens transplanted this month should be well watered at the time of planting. All newly-planted trees or shrubs should be well watered in dry weather. Roll and mow the grass every week.

FORCING.

FRUIT.—*Pine Apples*.—The weather of late has been on the whole favourable to plants showing fruit and to those in flower. By the sun heat we have been able to keep a high temperature in the day, and to give air more freely than we otherwise could do. The young stock shifted last month will now be

growing freely, and should be well attended to. They will not require very much water until they begin to fill the pots with new roots. They must have plenty of air in fair weather. Maintain a growing atmosphere, and a temperature of from 65° to 70° at night and 80° to 85° during the day, with an increase by sun heat. *Vines*.—The early crop will now be ripe, and should have plenty of air. Stop all superfluous growth. Whilst the second crop is swelling maintain a moist atmosphere. Give air freely in fine weather. Keep a temperature of about 65° at night and 80° during the day. Attend to the stopping and tying of shoots, and thin the berries before they get too large in late houses. *Peaches* and *Nectarines*.—Keep the shoots well tied-in in the early house, and be careful not to get them crowded. In disbudding, the bearing wood of the present year should be divested of all shoots except the terminal one and those near the base. When a deficiency occurs in any part of the tree more may be tied-in. Ventilate freely in fine weather, and be careful to close-up early in the afternoon. Syringe once or twice daily, and keep a moist atmosphere by throwing plenty of water on the paths, borders, &c. Attend to the disbudding and the thinning of the fruit in the second house. *Figs*.—As the season advances gradually raise the temperature of the house. Syringe mornings and afternoons. Keep a moist atmosphere. When the borders require watering, give them a good soaking. Plants in pots and tubs should have some weak manure water occasionally. *Cherries*.—Attend well to the watering, keep the trees clean of insects, and give plenty of air. *Strauberies*.—To get large fine fruit, pick off all the flowers as soon as two or three are set on each plant, which will be enough. Keep them near the glass and give them plenty of liquid manure, and keep a moist, warm, growing atmosphere until the fruit begin to colour. There will be no difficulty in getting plenty of fruit set after this if the plants are kept near the glass and have an abundance of air. *Melons*.—Attend to the thinning, stopping, and training of the shoots. Be careful not to leave too many fruit on a plant. See previous directions.

VEGETABLES.

Mustard and *Cress*.—Sow every ten days for succession. *Capsicums* and *Tomatoes*.—Shift into larger-sized pots. *Vegetable Marrow*.—Sow. *Celery*.—Prick-off and sow for late crops. *Kidney Beans*.—Attend well to the watering of plants in bearing. Sow once a fortnight for succession. *Cucumbers*.—Keep up a good bottom heat. Stop, thin, and regulate the shoots. Give air cautiously. Water when necessary.

HARDY FRUIT.

Owing to the mildness of the winter fruit trees are in a very forward state. Apricots, Peaches, and Nectarines are in full bloom. There is a prospect of a fair average fruit crop if the weather be favourable. Those who use coverings should see they are up every night until all danger from frost is over. Head-down newly-planted young trees. Dress *Strauberies* if not already done.

KITCHEN GARDEN.

Seize every favourable opportunity to get forward with the work. *Beans* and *Peas*.—Sow twice during the month. *Broccoli*, *Cauliflowers*, *Borecole*, *Savoy*, *Brussels Sprouts*, and *Lettuces*.—Sow broadcast in four-foot beds, and cover with nets to protect from birds. *Carrots*, *Parsnips*, *Beet*, *Salsify*, and *Scorzenera*.—Sow for the main crops in drills. *Radishes*.—Sow broadcast in beds. *Turnips*.—Sow a little early on a warm border. *Spinach*.—Sow. *Parsley*.—Sow. *Cauliflowers* and *Lettuces* that have been raised in heat should, after being gradually hardened, be planted out. *Potatoes*.—Get in the principal crop. *Jerusalem Artichokes*.—Plant out in good land. *Earth-up* and *rod Peas*. *Earth-up Cabbages*. Hoe frequently between the crops. In showery weather strew lime or soot over the young crops. Slugs will be very troublesome if they are not destroyed. Keep down weeds. Cut and trim edgings. Clean and roll well all the walks that they may set firm.—M. S.



DELPHINIUM ALOPECUROIDES.

WITH AN ILLUSTRATION.

WE now offer to the notice of our readers an illustration of a class of plants which, as a rule, is too much neglected at the present day, we mean that of hardy herbaceous perennials. The bedding system, by being followed to excess, has too nearly converted our gardens into dreary wastes in winter and spring, and left us, even in the gay months of summer and autumn, with little variety beyond differing shades of colour in some half-dozen kinds of flowers. The loss of the many spring flowers which a mixed flower-border used to afford is especially felt not only in private but in public establishments, where the formal style associated with the "bedding-out" system has monopolised all the space allotted to flowers.

Our subject is not, indeed, one of the spring-flowering class just alluded to, but it is one of those hardy herbaceous perennials which are just suited for mixed borders, and which are not only beautiful in themselves but beautiful in such an association. We, therefore, have no hesitation in recommending both the subject of our plate, and the class of plants to which it belongs, to the notice of all lovers of their gardens.

This variety of double Larkspur, which the raiser has called *alopecuroides*, doubtless from the close brush-like form of the principal part of the spike, was shown at a meeting of the Royal Horticultural Society's Floral Committee in July, 1861, and was then awarded a First-class Certificate. The specimens exhibited on that occasion were over 2 feet in length, furnished below with palmatifidly-lobed leaves, having incised segments and a ciliated margin, and terminated in a flower-spike or raceme slightly branched below and densely crowded with small double flowers of a bright blue, paler and reddish-tinted towards the centre. It was regarded as a most desirable and very ornamental hardy plant.

Mr. G. Wheeler, of Warminster, by whom it was raised and exhibited, has furnished us with the following memorandum respecting it:—

"This unique and very double Larkspur came up in a bed which had been sown with mixed seeds of *Delphiniums*, and is, therefore, an accidental garden variety. It withstood, without the slightest injury, the severe frost of Christmas, 1860, in the open border quite unprotected, and is consequently perfectly hardy. It has always appeared robust and healthy, growing freely in the open border, which is its proper place. It blooms in June and July, the spikes of flowers being about 2 feet in length when well grown, the tip of the spike then from 3 to 4 feet from the ground. It is propagated by dividing the roots, never producing seeds."

CAPE BULBS.

IN the days of my youth I was an enthusiastic cultivator of these curious and most interesting plants. The very intractability and almost impracticability of some of them was inspiring. One coaxed and bullied them alternately, hunting down a difficulty like a fox, until caught and annihilated by the good hound Perseverance.

I possess many still, and am extremely fond of them. I now propose making a few remarks which may be useful to your correspondents. I will first, then, take the dark side of the question. The whole of the Cape

Iridææ, and many other small African bulbs, if we desire to keep them in permanent cultivation, *should be planted in the autumn* in a bed of artificial soil, and protected absolutely from frost in those parts of England where strong frosts are the rule in the winter. I am not now writing for the south of England and mild seaside localities, where many of them will thrive with very little trouble bestowed upon them. The bed should consist of a sandy, a very sandy, compost of loam and sand, or of peat and sand, or of both mixed; any other admixture being more or less prejudicial. I cannot find any special superiority of peat over loam, and always use the latter. Peat, however, is said to be specific for some sorts. The soil must be thoroughly drained. I will not take up your time now in describing construction for this purpose, but will give some hints hereafter if requested. For the protective structure, probably a strong well-made Melon-frame, high enough at the back for the taller sorts, will be as good as anything else, always remembering that frost must be absolutely kept out. A rough straw casing round the outer sides will do this, the lights, when necessary, being covered with a thick piece of carpeting or other material of the kind always at hand and kept for this purpose alone. Air must be given largely in open weather, and the frame finally removed when the soft weather of late spring comes on. Slight morning frosts will not affect them. As soon as the foliage of the majority of them begins to fade the frame should be replaced so as for some weeks to keep off ruin, and ripen the bulbs. When the foliage is withered, *or nearly so* (for the old flowering-stems will often remain green for some time after the bulbs have ripened), let them all be taken up and examined whether the soil is to be renewed or no: this is an important point as will be seen presently. On examination some of the bulbs will be found multiplied by splitting into two or three, others merely increased in size, and all surrounded with innumerable small offsets. If you find you have four or five good-sized bulbs, these had better be destroyed. If the sort is valuable, plant a ring of them round the main patch, they will flower often after one season's growth, and always make the finest bulbs. Having lifted all your plants put each sort separately into a garden-pot of sand or light earth, and place them anywhere out of doors, or under glass, so that they be perfectly protected from rain and the attacks of mice. During September and October occasionally examine them, some will begin to start sooner than others. The little circle of protuberances round the base of the bulb will show the commencement of root-formation, and point the necessity for immediate planting. The whole, however, had better be got in by the end of October. I conclude this part of my notes by observing that fresh soil every year is *the grand secret* in growing these, and, indeed, all bulbs.

One of the causes of failure with Cape Irids, is the fact that they are received by amateurs in the spring and summer time; the few that are kept by the large bulb-sellers are received, however, and for sale with Hyacinths, &c., at the proper planting time. Your correspondents are lucky to have received them as early as this. As the case now stands they should be planted at once in such a bed as I have described; they will all flower, but the evil of the late spring planting will appear in after-cultivation. They will start very late next year, some even remaining entirely dormant; some will attempt to flower in the winter, and will not mature their bulbs till the following spring, when they ought to be beginning their proper period of growth. When this has occurred the most skilful attention will be required to bring them round. As the season is now creeping on, and it might take some time to prepare the bed and frame, I see no objection to growing them for this season in Mignonette-boxes, or planted pretty thickly in pots to be grown in the greenhouse; they will require

much water when growing strongly, especially those in wooden boxes. I have never succeeded in growing them permanently in glass houses, although I have seen it done by a few persons with the Tritonias and hardier Ixias. I was told then that they did best when kept several seasons in the same pot without change of soil.

With regard to published instructions, Mrs. Loudon's book on bulbs, and Mr. Beaton's series of articles in the old *Cottage Gardener*, contain the best information extant on the subject.

I will now describe as well as I can your correspondent's plants, beginning with Irideæ. Antholyza præalta is a noble and picturesque plant, increasing rapidly by bulbs; but the difficulty is to get them big enough in one season's growth to flower the next, when every bulb usually makes three or four instead of increasing in size itself. It is killed by a very little frost. I was once much struck with its beauty one evening in the garden of the Chinja, at Naples early in February. The next morning every plant was cut down by frost. A substratum of dung has been recommended. All the Babianas are pretty. Rubrocyanea is a gem of the first water; they are somewhat more delicate than Ixias. Many Gladioli will thrive in pots in the greenhouse or cold frame. Natalensis, the parent of our noble race of orange scarlets, is quite hardy; Blandus is nearly so, very delicate and pretty, and was one parent of a charming early-flowering race originated by Herbert, but now nearly lost; Hirsutus is a very interesting sort, of which there are several varieties to be grown as the Ixias, &c. Hesperantha cinnamomea, curious, not handsome. Hypoxis, say greenhouse. Geissorhizas are wee little delicate things, resembling Trichonema, flowering almost on the ground; would be better seen if grown in pots in the cold frame. Melanthiums, of no beauty, of rather hardy nature. Sparaxis is a mere section of Ixia, both extremely pretty, requiring the frame and bed; so also Tritonia, Watsonia, Moræa. Tritonias are nearly all crimson or scarlet. Moræas are day flowers, formed like Iris, and extremely pretty. Lapeyrousia, as Geissorhiza corymbosa, is a gem. Wurmbea, Anomatheca juncea, of no beauty. The Editor will perhaps excuse me as an old hand if I differ from him in not recommending the preliminary potting with heat, and it was doubtless by a *lapsus penæ* that Watsonias were pronounced evergreen; they require the treatment of Ixias and the tenderer Gladioli, to which they are nearly related. In the frame-bed may be planted Albuca.

Now for the more difficult subjects. Amaryllis revoluta.—This generally turns out to be the common Belladonna Lily; if true, it is a very pretty but rather difficult greenhouse bulb. I used to flower it by hanging it up in the greenhouse with a pan of water underneath it when in full growth. Brunsvigia falcata is a greenhouse plant; will not flower unless plunged in strong bottom heat about midsummer. I have flowered it there many times. It is handsome, but very soon over; should be kept quite dry in winter, being apt to start with the least moisture; soil sandy. Disa grandiflora is the gem of the lot, requires pure cold-frame treatment, being brought into the greenhouse to flower. The other Disas are but little known. Satyrium, these are rarely flowered a second time. Treat as English Orchis, grow in cold frame, keep dry when dormant, take especial care to exclude worms, and have much patience. For Lachenalias I recommend pot-cultivation in the greenhouse: the same for Oxalis. These are mostly hardy, but spread and overwhelm other things when in the open bed. Nerine sarniensis, the Guernsey Lily, may be thrown away; it has already flowered, or tried to do so, in the packing-case, and will never flower again. They are put in by the Cape people to make weight. The Ornithogalums are both handsome greenhouse plants. Brunsvigia ciliaris, an extremely difficult bulb of no beauty, which no one I

believe has flowered but Mr. Leach, who seems to have a mesmeric power over difficult bulbs.

Supplementary Remarks.—I must premise that I am writing for the midland and northern parts of England. My instructions would be foolishness to a Cornishman or other southerner. There are even favoured spots in the cooler parts where they will sometimes thrive in the open air for several seasons. The Cape-bulb cultivator, whether of Irid or Amaryllid, must make up his mind to go in for it personally. No gardener will willingly undertake them, and but few are competent.

In speaking of cold-frame cultivation, I wish it to be understood that the common, damp, ill-ventilated, half-managed affair used for half-hardy plants *will not do*. It must be a well-constructed and arranged thing, frost-proof, and neither by situation nor construction liable to damp or neglect. In conclusion, I shall be happy to give any further information on particular points if requested.

R. T. C.

PREJUDICE.

PREJUDICE is, I suppose, only another word for pre-judgment. Prejudice is usually the fruit of ignorance and also the foster-nurse of ignorance. It barricades the mind and keeps out improvement; it exists, we know, in the religious and political world to a great amount; it exists also in the theatre. Hence Molière made an old woman—simple-minded, and having the essential and inherent perfection of simplicity of thought—the judge of his comedies; and he found that the audience always followed the old woman, and never failed to laugh in the same place. In a word, she had not the artificial and prejudicial taste of a critic. Men of weak understanding, strong fancies, and strong passions, are hurried by their blind prejudices to think that those who differ from them are knaves and charlatans. Inventors of new things are at once set down as humbugs.

Now, is there no prejudice existing among horticulturists? Let us take the case of orchard-houses. How often have I heard persons say, "Oh! they are all humbug." Then they have justified the assertion by the failures which they have seen, heard of, or perhaps dreamt of. How strange it is that such persons should not ask themselves these questions before they presume to run down one of the best modern inventions for the growth of tender fruits in our precarious climate:—"Are the orchard-houses properly constructed? Are they properly managed? Are the trees properly treated as regards potting, pruning, and hardening of the wood?"

I have seen admirable orchard-houses in which (I speak of pot-fruit-culture) it was impossible there could be success. The plants were over-manured, improperly pruned, and the wood was succulent and *unhardened*. Hardened moderate-sized wood this year is the very key of success next year. I think that orchard-house pot-fruit plants should, after fruiting, be put out of the house into the open air. Instead of this, the plant is kept in a *stew* all the year round. In every case where I have seen a failure I have seen the reason or reasons. I do not practise myself orchard-house culture, but reason teaches me that that is the best culture which is assimilated to culture in a hot genial climate.

Passing from orchard-houses, let me ask, Is there anything more absurd than the manner in which forcing-houses and such like are sometimes managed? They are more fit for Orchids and *washerwomen* than anything else. There is, as stated in the *Gardeners' Chronicle*, April 11, too little attention paid to

hygrometer and thermometer. Things are put together which ought not to be in the same degree of heat and moisture. I have seen Orchids and forced Strawberries in the same house. The Orchids seemed to do well; but the Strawberries, fruit and leaves, were covered with mildew and perspiration. How many noble crops of Grapes are estopped or spoilt every year by inattention to the atmosphere within the house. Glass-fruit-culture, with heating apparatus, ought seldom or never to fail; and, when there is failure, I always suspect that the fault lies with the cultivator. A deficiency of dry air is, I believe, one of the chief causes of failure. Be not, then, prejudiced against glass, or artificial heat, or orchard-house pot-culture, with or without heat. Go where these things are properly managed, and you will see success beyond your expectation; and further, recollect that when you hear of failures, they are generally the effect of mismanagement. Out of doors we are obliged to submit to climate and the seasons; but people who have heated glass houses, or even unheated orchard-houses, ought to be able to make a season of their own.

Finally, do not condemn all the gardeners of England because some are obstinate, ignorant, and prejudiced. I believe that no nation has better gardeners. I doubt if any nation—I speak of a whole nation—gardens so tidily as the English nation. As education progresses, prejudice and ignorance will recede.

Rushton.

W. F. RADCLYFFE.

METHOD OF ASSISTING SEEDLING FRUITS INTO EARLY BEARING.

SOME valuable and interesting additions have of late years been made to the family of Pomona; and, although not quite so prolific as her sister Flora, or attracting numerically so large a class of admirers and manipulators in the art, has nevertheless some of her productions of a higher standard, and of more real intrinsic worth. These will doubtless be rising into fame in a further generation, when the productions of her gay sister have been either superseded by her own offspring, or fail by change of fashion and circumstances to interest and gratify. Orchard-houses have already done much by way of promoting and extending fruit-cultivation. By them also a new field and wider scope are opened up for amateurs, who may, in addition to the cultivation of choice well-known sorts, raise seedlings and prove their value in a shorter space of time than when planted in the open air. Those who are not in possession of one of these structures will find early fruitbearing enhanced by budding on and near the extreme points of the branches of well-established trees of the same genera, and their value tested in a much smaller space than could otherwise have been done by growing on their own roots.

The plan I adopt here is to get them budded the first year, when the plants are in the seed-leaf; they are potted singly into small pots and grown in heat until they stop their growth. At this stage they are removed to a cooler place for about a month, which gives them a sort of rest, and enables them to be easier excited into growth. When again put into heat, this, with the assistance of a good-sized shift into rich loamy soil, and a brisk heat, soon starts them into a second growth.

As soon as the buds rise freely from the wood, they are taken off and inserted on healthy and strong-growing shoots of the current year: this operation has commonly been performed about the end of August. I have had by the above method buds inserted upon the trees the seed was taken from in less

than ten months. Although I have not yet proven any of my own productions to be a *decided acquisition*, I still hope, and the interest is the same. I may, however, state that I have had several quite as good as the parent's sorts they were raised from, consisting of Grapes, Peaches, Apricots, and Plums; in the latter sort I have some seedlings growing of each year's raising since 1855; these are budded mostly on the Green Gage, which I find answers the purpose better than many other sorts. It gives a chance also of fruit from other sorts when it fails in its own. The year and number are attached to each bud when inserted. In referring to my note-book I find there were ten sorts flowered last spring; but out of these only some three or four set their fruit, and those were imperfect specimens to judge from. The show of fruit-buds is good for this season, and hope to have a greater variety in fruit.

Gordon Castle, N.B.

J. WEBSTER.

RAISING THE GLADIOLUS FROM SEEDS.

As the cultivation of this gorgeous and popular flower is extending fast, perhaps it may not be generally known that it seeds freely, and that new varieties may be raised every year without going to the continent for them.

In the spring of 1861, I procured from France about twenty-four of the highest-priced and best of the *Gandavensis* and *Ramosus* sections for crossing with *Cardinalis* and some of the best of the old varieties. The new kinds I grew singly in pots; and in May, when all danger from frost was over, they were placed in the open air, and at the flowering-time all I intended to cross and seed were set in an airy greenhouse to protect them from heavy rains. It requires some attention in setting the seed, as the pollen is soon dispersed when the flowers open. The seed-vessels swell amazingly fast when the flowers are impregnated, and the plants do best in the open air afterwards.

The following is a list of the kinds I have seeded and crossed with others, and they are the best and most distinct in colour yet raised by the foreign growers:—

GANDAVENSIS SECTION.

Bertha Rabourdin, white with carmine stripe.	Madame Leseble, pure white, striped rose.
Canary, clear yellow, striped rose.	Napoléon III., bright scarlet, striped white.
Madame Binder, white, striped carmine.	Ninon de l'Enclos, carnation, ruby-striped.
Comte de Morny, cherry red, striped violet.	Princesse Clothilde, salmon, blotched violet.
Duc de Malakoff, orange scarlet, shaded yellow.	Princesse Matilde, rose, striped carmine.
El-Dorado, clear yellow, red-striped.	Raphaël, bright vermilion, white centre.
Madame De Vatrijs, white-shaded, striped carmine.	Rembrandt, crimson scarlet.
	Vellida, delicate rose, spotted lilac.

RAMOSUS SECTION.

Alma, white, spotted red.	Duchess of Sutherland, dark red, and white centre.
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The above were crossed with some of the old sorts of good shape and colour, such as—

Brenchleyensis, bright vermilion.	Cardinalis, bright scarlet, white centre.
Fanny Rouget, rose, shaded violet.	Colvilli, purplish-lilac.
Couranti Fulgens, crimson.	Queen Victoria, scarlet, white centre.
Monsieur Blouet, delicate rose.	Lord Clarendon, red, feathered white.
Bowiensis, scarlet.	

The seeds of the *Gladiolus* when ripe are similar in shape and size to the Tulip, and do best kept in the seed-vessel till sowing-time in February or March. I sowed mine last year in shallow boxes, in March, and placed them

on the floor of a late Peach-house, where they vegetated freely. In the beginning of summer the boxes were placed in the open air, and the young plants kept free from weeds, and not neglected for water. In the autumn, when the leaves began to change colour, water was withheld, and the boxes placed in a situation where no frost could reach them. In February this year the boxes were examined, and some of the young bulbs of the *Cardinalis* and other early-flowering sections were beginning to grow. I had them, therefore, all replanted in fresh soil and thinner in the boxes than last year, and I expect some of the bulbs will be large enough to flower next year.

I find I have between one and two thousand of young bulbs of the different kinds, and many of them larger than peas.

The young seedlings grow well in the boxes with the following soil—viz., one-half sandy loam and peat. I intend next spring to plant out all my seedling *Gladiolus* in the *Rhododendron*-clumps, as both the soil and situation suit this flower to perfection. The great expense of procuring quantities of the best varieties of this showy flower for massing in clumps has hitherto prevented its being used generally. By raising quantities of seedlings every year this want will be supplied, and an effect be produced in pleasure grounds in the autumn months with *Gladioluses*, *Hollyhocks*, and *Phloxes* that has never yet been effected nor even imagined.

WILLIAM TILLERY.

THE GLADIOLUS.

THE remarks that your correspondent "Quo" makes on the disease and culture of the *Gladiolus*, in the Number of the *FLORIST AND POMOLOGIST* for March, page 25, should, I think, be interesting to those who grow them, whether for exhibition or decorative purposes. Your correspondent does not say whether the rot attacked the bulb or the spike of flowers, nor what treatment they that he saw diseased were subject to. It might be strong stimulants were the cause of the sudden check when coming into flower. The severity of the spring could hardly be the cause, when they did well up to the time of flowering. Certainly stiff, ill-drained soils are not suitable for them. As far as I can know, I have not heard of any such disease about the county Dublin as yet. As the *Gladiolus* is becoming such a general favourite for autumn decoration in the flower garden, which nothing out of doors can surpass at the season they are in flower, it would be a great boon to the public if those who cultivate them successfully would give a few hints of their mode of culture, as well in Ireland as in England. I am sure such would be acceptable to the many who are growing them, as well as those who are intending to begin. As to potting them in February and planting out in April, I do not consider necessary at all—at least in my idea. I generally prepare my bed for their reception early in January, with the following compost—one-half the top of an old pasture, and one-half leaf mould and rotten dung in equal parts, well mixed together. The bed is filled-in to the depth of 18 inches, and left to settle down for about a fortnight. It is then raked off level and the bulbs planted. The beds are 4 feet wide, and I put three lines in the bed, and 12 inches from bulb to bulb. I place sea sand under, and over, and around each bulb; then have them covered with the same material as the bed to the depth of 2 inches, which I consider is better than to cover them deeper. I generally plant them about the 21st of January, afterwards protecting them from frost and heavy rains; and I find a great

advantage over potting, for I find that my bulbs are now (16th March) growing freely—some of them an inch long; whereas, if they are potted, and they make good roots, they soon reach the sides of the pots, and are injured in the turning-out, and by giving them a check in their growth. I never give my beds water until July, and then only when they require it very much. When they are showing their spikes I give a little weak liquid manure water occasionally; and they are syringed on fine evenings, which I consider does them a great deal of good when in bloom. They are protected from wind and rain, and from strong sun. Your correspondent says he has cut them down to 6 inches and taken them up as soon as they are done blooming. I disagree with him in that respect, for I consider the longer they are kept growing so much the better for the bulbs. I never take up mine as long as the frost keeps off. They are then raised with as much of the soil as will adhere to the roots, and placed in a dry, airy loft; and when they are perfectly dry they are gone over and all offsets taken off, and placed in paper bags until the time of planting comes again.

Dublin.

D.

SLUGS.

A GREAT deal of complaint is often made about this troublesome little pest, not only by gardeners, but by farmers and amateurs of both. There are complaints heard of seed-beds being cleared of seedlings of almost every kind of plant in cultivation, both in-doors and out. Almost everything gets a nibble from those pests where they abound. It is an easy matter to collect those pests together in showery, misty, moist weather, in spring or summer, winter or autumn, by a very little attention, by getting a few fresh-brewed grains, place about a table-spoonful in lumps about borders, quarters, or any corner they abound in every evening. By eight or nine o'clock go round with lantern and a bucket of fresh slaked lime, where they will be found collected by hundreds; dust a little lime on them, or collect them in a bucket or box, and apply hot water if lime is not at hand. Where brewers' grains are not easily obtained, new bran scalded is a very good substitute I have found placed in the same way.

Bicton.

JAMES BARNES.

NOUVELLE FULVIE PEAR.

WITH AN ILLUSTRATION.

THE subject of our present illustration, so admirably portrayed by Mrs. Dix, is one of the seedlings raised by M. Grégoire, of Jodoigne; and it is one which, from its handsome appearance, excellent quality, late ripening and fertility, is likely to obtain a wide cultivation. The fruit is large, of a long pyriform shape, considerably bossed and uneven in its outline. The skin is of a deep green before it ripens, and when ripe it assumes a yellowish coat, and it is considerably covered with russet. The eye is open and set in a depression, the edges of which are uneven and sometimes even knobbed. The stalk is about an inch long, inserted on the end of the fruit without any depression. The flesh is yellowish-white, fine-grained, buttery, and melting. Juice abundant, sugary, with a fine perfume and delicious flavour.

This excellent Pear ripens in January and February.



Novelle Fulvie Pear.

AMONG THE HYACINTHS.

On the 25th March I paid a visit to Messrs. W. Cutbush and Son's grounds, at Highgate, to inspect their Hyacinths. These Hyacinth shows have become a spring institution both at Highgate and Waltham Cross; Mr. W. Paul having also become a caterer to the public in conjunction with Messrs. Cutbush & Son. And the public—and especially those who are “Hyacinth-fanciers,” if the term be at all tolerable—should make a point of annually inspecting these exhibitions, for there is not that degree of knowledge of the Hyacinth abroad that is entertained of many other flowers. It requires constant contact with this flower to become acquainted at all familiarly with the leading varieties even; while, among the great bulk of those flowers that have been several years in cultivation, the distinctions are so narrow, that the knowledge of them that constitutes an efficient judge, and which should be in the possession of those who have to decide on the merits of competing stands, can only be acquired by a continuous observation when they are displayed in quantities and in variety.

At Highgate the flowers were arranged in the show-house adjoining the dwelling, the front stage being occupied by Hyacinths and a few Tulips and Amaryllis; the back was an extremely gay pyramid of spring-flowering plants—a front elevation of lovely and charming colours. Right hearty gratification was there here for those who wended their way hither, and well was the *levee* attended. I was amply repaid for braving the steep ascent of the hill that leads up to where this floral *fête* was held.

I began with the bright-coloured varieties, that are always the most conspicuous in a group. There were *Desdemona*, rich dark; *Queen of Hyacinths*; *Victoria Alexandrina*; *Macaulay*; *Von Schiller*; *Howard*; *Solfaterre*; *Circe*, deep crimson, edged with light pink, a flower that pleased me vastly; *Cosmos*, fiery red midrib, edged with rosy pink; and *Lina*, a deep crimson, that changes with age to a dark magenta. Of lighter shades there were *Jenny Lind*, a deep rose double variety; *Johanna Christina*, pale rose with salmon stripes; *La Dame du Lac*; *Cavaignac*, a very showy flower with large bells; *Lady Palmerston*, a very pretty flower; *Koh-i-noor*; *Florence Nightingale*, very beautiful; *Noble par Mérité*, a double variety with a close and compact spike; *Duchess of Richmond*; *Gigantea*, a very delicate pink; *Princess Charlotte*; *Le Prophète*; and *Queen Victoria*. A few *Blues* were scattered here and there—sole survivors of a “grand array” that a few weeks previously were radiant with freshness and vigour. *Prince Albert*, *General Havelock*, and *La Nuit*, were conspicuous by their sable vestments; but darkest of all seemed to be *Lamplighter*, an intensely dark purple, with light centre. Of lighter shades were *Pieneman*, a kind of *Samson* in this class, having immense azure bells, but forming a loose spike; *Garrick*, a good double; *Mimosa*, a dark variety that had become paler by age; *Grand Lilas*; *Van Speyk*, and *Argus*, a beautiful Hyacinth that appears to be extremely difficult to catch good. I have not seen a good example of it this season. Those I saw were wanting in that rich gloss and heightened colour that I saw on it two years ago in Yorkshire. It is too uncertain ever to become an exhibition flower. Two or three mauve-coloured varieties could not fail to catch the eye. *Prince of Wales* and *Haydn* were the best of these. There were also a double variety named *Marie*, a bronzy purple edged with blush; and the old deep lilac variety, *Unique*. The *Blush* kinds were yet in force, and had that *wazy* appearance that makes them such general favourites. Among these were *Grand Blanche Imperiale*, a beautiful blush, and *Tubiflora*, more delicate in colour, but both having large and showy bells, the tube of each being deeply stained with purple. Then came *Grandeur à Merveille*, *Lady Franklin*, *Elfrida*, *Voltaire*, *Scraphine*, and *Lord Wellington* (double). Of *Pure Whites* I noticed *Paix de l'Europe* and *Mont Blanc*—two varieties that seemed to be identical, though I have no doubt but that the bulbs differ widely in size and colour, a difference often observed in bulbs, between the flowers of which there exists but a very narrow distinction indeed. Others were *Fair Maid of Denmark*, with large pure white bells well reflexed; *Alba Maxima*, *Snowball*, *Mirandoline*, and *Mammoth*, the latter having very large bells. But few *Yellows* were present; in fact but a few of these are really worth cultivation; but I am hoping that we are on the eve of seeing valuable accessions to the ranks of this much-needed colour. *Ida*, a beautiful delicate cream colour, and *San Francisco*, a sulphur yellow, but having smaller bells than *Ida*, were the best in this class. *Victor Hugo* is in the way of *Ida*, and with *Horoiné* (single) make up the cream of the yellow varieties. Lastly, there was the most distinct Hyacinth we have—*Duc de Malakoff*, fine examples of which have appeared this season; a flower partaking of the characteristics of both the red and yellow varieties, yet connected with neither. Mr. Cutbush classes it with the yellow kinds, and describes it as a “straw colour, with stripe of rosy lake on each segment.”

Some Tulips were yet in flower, but they, too, were rapidly “passing away.” I noticed *Vermilion Brilliant* and *Cramoie*, both scarlets; *Duc d'Arenberg*, fine red feathered with yellow; *Grand Duc*, glowing bronzy red, but deeply edged with yellow; *Matilda*, bright

crimson ground feathered and streaked with white; Florida, light purple flamed with white; Rouge Luisante, rose edged and striped with delicate pink, the ground colour changing with age to a rich rouge; Fabiola, rosy purple feathered and flamed with white; and Thomas Moore, a golden buff variety.

The next day a hurried visit was paid to Mr. W. Paul's establishment at Waltham Cross; but here decay had made a deeper impression than at Highgate. The flowers that remained of the fine display that had been made here were gathered into a cool back house for the show at the Regent's Park on the following Saturday. There were, however, some good flowers to be seen, the best being Bloksberg, Laurens Coster, and Prince Van Saxe Weimar, *Blues*; Lord Wellington, Princess Royal, *Reds*; and Prince Van Waterloo, *White*, all these being double varieties. The single varieties were more numerous, and comprised a few good spikes of *Blue* flowers, such as Grand Lilas, Baron Von Tuyl, Charles Dickens, and General Havelock. Of *Reds*, Von Schiller, Reine des Hyacinths, Gigantea, Madame Hodson, Macaulay, Aurora Rutilans (very high-coloured flower), Koh-i-noor, l'Ornement de la Nature, Cosmos, Milton, Princess Charlotte, Cavaignac, Florence Nightingale, Soifaterre, and Lord Wellington. *Mauve* colours were represented by Haydn and Marie. Some good examples of *Single White* were also noticeable, such as Mirandoline, Mont Blanc, Snowball, Tubiflora, Grandeur à Merveille, Queen of the Netherlands, Madame Van der Hoop, Alba Maxima, and Scraphine. Of *Yellows* there were good spikes of Duc de Malakoff and Alida Jacobea.

For the present we leave the Hyacinth. The subject of new Hyacinths, and what constitutes their claim to be considered *new*, rests on a most unsatisfactory basis, judging from what was staged on the 18th of March at the Horticultural Society. By-and-by I will be "among the Hyacinths" again, to ascertain, if possible, what may be considered "new varieties."

Quo.

THE METROPOLITAN EXHIBITIONS.

ROYAL BOTANIC SOCIETY, *March 28th*.—The first of these small exhibitions—heralds of the annual procession of larger meetings—was held at Regent's Park on the last Saturday in March. Camellias were the leading item in the schedule, but they were not numerous by any means. Specimens in pots came from Mr. W. Young, gardener to R. Barclay, Esq., Highgate, who was awarded a second prize in the Amateurs' Class; and from Messrs. Veitch & Son, who were first in the class allotted to nurserymen. First prizes were awarded to Mr. Todman, gardener to R. Hudson, Esq., Clapham; and to Messrs. J. & C. Lee, Hammersmith, for cut Camellias.

With twelve pots of *Cyclamen persicum*, Mr. Holland, gardener to R. W. Peak, Esq., Isleworth, was first; second, Mr. Wiggins, gardener to E. Beck, Esq., Isleworth; third, Mr. W. Howard, gardener to B. Edgington, Esq., Wandsworth. These stands comprised some very pretty varieties of this favourite spring flower.

Mr. Todman was first with some fine Chinese Primroses; Messrs. Outbush, of Highgate, being second. Double varieties were shown by Messrs. F. & A. Smith, Dulwich, similar to those produced by them at the Meetings of the Horticultural Society.

Collections of ornamental and flowering plants were shown by Messrs. Veitch & Son, and Mr. W. Bull, of Chelsea; by Messrs. J. & C. Lee, Hammersmith; B. S. Williams, Holloway; and A. Henderson & Co., Edgware Road. A collection of twelve hardy Conifers were also staged by Mr. J. Standish, of Ascot.

In the Miscellaneous Class a whole crowd of exhibitors staged a great diversity of subjects, to many of which small prizes were awarded. Messrs. A. Paul & Son, Cheshunt, had boxes of cut Roses, and plants of the same in pots; Mr. W. Paul also had cut Roses, and groups of Hyacinths and Tulips that told of departing glory; Messrs. Outbush & Son also brought the reserve of their army of Hyacinths and Tulips, their "last appearance" for this season it is presumed; Mr. Standish had Camellias; Mr. Bull new and rare plants; and Mr. Cross, gardener to Sir F. H. Goldsmid, Bart., a group of greenhouse plants. Certificates of the first class were awarded to Messrs. E. G. Henderson & Son, Wellington Road, for *Amaryllis Brilliant*, a fine bright-coloured variety; and for examples of the red and white Fern-leaved *Primulas*. To Mr. Young, of Highgate, Messrs. J. & C. Lee, Mr. W. Bull, and Messrs. A. Henderson & Co., for specimens of *Pandanus elegantissimus*. To Mr. Standish for two varieties of Japan *Skimias*. Messrs. Veitch & Son sent *Camellia Fillipo Parlatore*, a rose-striped variety on a white ground, very smooth, and of fine form. To Mr. Bull for *Trichomanes anceps*; Mr. B. S. Williams for *Caladium Lowii*, and for *Phalænopsis Schilleriana*. Also to Messrs. A. Henderson & Co., for *Dracæna cannaefolia*. Second-class Certificates were awarded to Mr. Bull for *Nephelaphyllum cordatum*, and for *Amaryllis Fire King*, a

rich, glowing, bright scarlet variety, remarkably showy. To Messrs. Veitch & Son for *Camellia Giardino Santarelli*; Mr. J. James, gardener to W. F. Watson, Esq., Isleworth, for *Cineraria Emperor*, a crimson self of good properties; and to Messrs. F. & A. Smith, of Dulwich, for *Azalea Surprise*, having a pinkish edge to a salmon ground colour, and being conspicuously spotted with deep red: it is a very attractive variety. The same award was also made to Messrs. Smith for *Hemerocallis elegans* fol. var. handsomely variegated.

Some Pansies were staged by Mr. Bragg, of Slough. Messrs. Dobson & Son had plants of the *Cineraria Conqueror*; and Mr. Bull a blooming plant of *Bougainvillea spectabilis* in a small pot.

ROYAL BOTANIC SOCIETY, *April 11th*.—I looked in here for a short time and found a small but very attractive show, a good company, and the weather extremely mild and pleasant. New things attracted my attention; among these I found Messrs. F. & A. Smith, of Dulwich, had some of their splendid blush double *Primulas*, their variegated *Hemerocallis*, seedling *Cinerarias Clara*, a very large and finely-formed flower, deep rosy crimson edge to a pure white ground and dark disk; *Roi de Feu*, a rosy crimson self; and *Madame Thibaut*, a rosy purple-edged variety with dark disk. I saw also their new *Azalea Surprise*, and under a bell-glass a beautifully-marked plant of *Eriocnema marmorata*, and, lastly, a good specimen of *Pandanus elegantissimus*, which had received a Certificate of Merit. Mr. Turner, of Slough, received the same award for *Azalea Louise Von Baden*, a large waxy pure white, flower, very stout, and free-flowering; also for *Auricula Princess of Wales*, a blue self that seemed to excite the admiration of *Auricula*-fanciers. Messrs. S. Perkins & Sons, of Coventry, had a well-flowered plant of their *Verbena Lord Leigh*, and cut flowers of the same, to which a Certificate of Merit was awarded; it is a striking flower, colour vivid scarlet with lemon eye, and will be highly acceptable either for pot-culture or bedding purposes. Mr. Bull, of Chelsea, had a fine collection of ornamental-foliaged plants, together with a few new things, to one of which, *Anæctochilus argyrea*, a Certificate of Merit was awarded. The same to Messrs. Ivery & Son, Dorking, for two handsome seedling *Athyriums*, vars. *Iveryana* and *Mucronatum*. Also to Mr. B. S. Williams, of Holloway, for *Aralia Sieboldi*, foliage edged with yellow; and for *Aralia* sp., having long lanceolate leaves spotted with green. The same exhibitor also had in a miscellaneous group fine examples of *Caladium Lowi*, *Phalænopsis amabilis*, and *P. Schilleriana*, in flower, &c. Messrs. E. G. Henderson & Son received a Certificate of Merit for *Cupressus Lindleyana alba*, a handsome variegated variety; the same had also *Govenia albicans*, a dwarf hardy herbaceous plant covered with yellow *Lobelia*-shaped flowers; *Rhododendron Veitchii*, with large pure white blossoms; *Coleus nigricans*, &c. *Rhododendron Countess of Haddington* was again shown by Mr. R. Parker, of Tooting, who also had a batch of beautiful *Amaryllis*. Six varieties of *Amaryllis* came from Messrs. Outbush & Son, Highgate, who also had some fine *Hyacinths* still remaining from their great display.

With six *Azaleas*, Mr. Turner was first, having nice plants of *Holfordi*, *Prince Jerome*, *Rosy Circle*, *Iveryana*, *Criterion*, and *Admiration*; Messrs. Ivery & Son and Outbush also exhibited. In the *Amateurs' Class*, Mr. Cross, gardener to Sir F. H. Goldsmid, had *Holfordi*, *Iveryana*, *Triumphans*, *Duke of Devonshire*, *Criterion*, and another. Mr. Todman was second. In the class for three new varieties, Mr. Turner was first with *President*, *Perfection*, and *Duke of Cambridge*; second, Mr. Todman, with *Prince of Orange*, *Kinghorni*, and *Dr. Livingstone*.

Mr. W. Paul, of Cheshunt, received a Certificate of Merit for *Magnolia Linné*, a large dark-flowered variety; and also furnished boxfuls of cut *Roses*. Messrs. Paul & Son had the same. Certificates of Merit were awarded to Messrs. A. Henderson & Co., Pine Apple Place, for *Tropæolum "Ball of Fire"*, a creeping variety with bright scarlet flowers; and for *Dracæna Rumphii*.

Specimens of Dr. Watson's patent Fern shell-brick for conservatory walls, &c., were exhibited by Messrs. Rosher, of Chelsea, who also had samples of edging tiles for kitchen and flower gardens.

ROYAL HORTICULTURAL SOCIETY, *April 15th*.—This was an exceedingly gay and attractive Exhibition, *Azaleas*, *Roses*, and *Cinerarias* being the most conspicuous features. Close to the entrance were staged a splendid collection of twenty-four varieties of *Auriculas*, and next to these a matchless group of twelve varieties—all from Mr. Turner, of Slough, in competition for the prizes offered for this number. Everybody admired them; the popular fancy went out towards those with the singular frosted-foliage, like guests from a wedding feast. The Self were, Mrs. Sturrock, *Pizarro*, and *Apollo*; Green-edged flowers were *Lovely Ann*, *Alexander*, and *Duke of Cambridge*; Grey-edged, Sir C. Napier, *Mary Ann*, and *Perfection*; and lastly, White-edged flowers, comprising *Glory*, *Catherina*, and *Ann Smith*. Nobody

competed with Mr. Turner, and no one wondered at it. Amateurs exhibited eight varieties, but they bore no comparison to Mr. Turner's. Six Alpine varieties were represented by one group. Six *Polyanthus* the same.

Mr. James, of Isleworth, had a group of Pansies in pots, too early for the heads of flower they will furnish a few weeks hence. Mr. Bragg, of Slough, was the only exhibitor of eight Fancy Pansies in pots, having Princess Alice, Princess Clothilde, Masaniello, Octavie Demay, Etoile du Nord, Victor Hugo, Drainant, and Belle Lilleoise. It was a pity these were thus early exhibited, as the incompleteness of the lacing failed to give an accurate idea of their true character. Messrs. Downie, Laird, & Laing, of Edinburgh, had six seedling flowers of Fancy Pansies, two only of which were named—one H. O. Nethercote, a crimson and purple self with dense blotch, very small, and inferior as shown; and Earl of Rosslyn, a fiery crimson self with dark blotch, a "telling" colour, but small in size, Mr. Laing saying it was the first flower that had opened.

Azaleas and Roses were the prime features of this Show, and exceedingly gay they were. Foremost was a splendid group of twenty-four varieties from Mr. C. Turner, of Slough, nine of which were intended for Class 1, but were unfortunately excluded owing to the pots being too large. I noticed a well-flowered plant of the yellow *Azalea sinensis*, the centre of a group at the end of the room. Surrounding this variety were Prince Jerome and Holfordi, *Reds*; Criterion, Gem, Perfection (Frost's), Roi Leopold, Rosy Circle, Vesta, and Standard of Perfection. Messrs. Veitch & Son were the only exhibitors of nine varieties, having good plants of Souvenir de l'Exposition, Perryana, Comte de Hainault, Duc de Nassau, Iveryana, Magnificent, Conqueror, Roi Leopold, and Rubens. In the Amateurs' Class for nine varieties, Mr. J. Todman, gardener to R. Hudson, Esq., Clapham, was first; and Mr. Higgs, gardener to Mrs. Barchard, Putney Heath, second. Good plants of Roi Leopold, Model, Iveryana, Dr. Livingstone, and The Bride, were in the group of the first-named. Messrs. Veitch and Son were first with six varieties, having *Petuniædora*, Iveryana, Apollo, Splendens, Triumphant, and Queen Victoria. Second, Messrs. Ivery & Son, Dorking, with *Crispiflora*, Baron de Vriere, Gem, Model, Louise Margottin, and Iveryana. A group of twelve varieties were contributed by Messrs. H. Lane & Son, Berkhamstead.

Some admirable plants of Roses in pots were shown. With six kinds, Mr. Turner was first, having Victor Verdier, Souvenir d'un Ami, Coupe d'Hébé, Souvenir de Malmaison, Général Jacqueminot, and Baronne Prevost. Second, Mr. W. Paul, of Waltham Cross, with Madame Boll, Anna Alexieff, Cardinal Patrizzi, Souvenir d'un Ami, Madame Willermoz, and Madame Domage. With four varieties, Messrs. Paul & Son were first, having Général Jacqueminot, Victor Verdier, Belle de Bourg-la-Reine, and Souvenir d'un Ami. Second, Mr. Turner, with Comtesse de Chabillant, Souvenir de Comte Cavour, Queen of Denmark, and President. Messrs. Paul & Son, and W. Paul, had large quantities of cut Roses, among which were some splendid flowers. A collection in pots were shown by Messrs. H. Lane and Son, among which were, H.P.'s, Tunon and President Lincoln, two bright flowers of great merit; Tea, Madame Falcot, yellow; and Bourbon, Louise Margottin, delicate pink.

Collections of miscellaneous plants in flower came from Messrs. Veitch, J. & C. Lee, and W. Bull; a group of hardy Ferns came from Messrs. Ivery & Son; stove and greenhouse plants from Messrs. F. & A. Smith; Lycopods from Mr. Higgs; some well-bloomed *Calceolarias* from Mr. James, of Isleworth; pretty *Cyclamens* from Mr. Holland; and a small collection of Orchids in bloom from Messrs. Veitch & Son, among which was the singular *Anthyrium Scherzerianum* that awakened so much interest last year. I append a description of this flower that appeared in the *Gardener's Chronicle* of the 4th inst., leaving it to your readers to realise it as best they may:—"This desirable little *Orontiad* has stalked lance-shaped dark green foliage, and a bright scarlet inflorescence, the ovate spathe of which is flattened-out and reflexed against the stalk that supports it." There were also in flower *Anguloa Ruckerii*, *Trichopilia coccinea superba*, and *Dendrobium densiflorum album*, and *aggregatum magus*. Near these were *Rhododendrons* *Sesterianum*, and *R. jasminiflorum* in flower. First-class Certificates were awarded to *Magnolia Linné*, a dark-flowering variety of *Conspicua*, from Mr. W. Paul; to *Alocasia zebrina*, from Messrs. Veitch & Son; to *Cheilanthes Borsigiana*, a small golden variety, from the same; to *Greenovia aurea*, a showy pale yellow species from the Canaries, from Mr. W. Bull; to the new pure white *Azalea Louise Von Baden*, from Mr. Turner, of Slough; and to a handsome *Conifer*, *Retinospora leptoclada*, from Messrs. E. G. Henderson & Son. Certificates of the second class were given to Mr. Page, gardener to J. M. Strachan, Esq., Teddington, for *Cineraria Snowflake*, a pure white with dark disk; to Messrs. Veitch & Son for *Azalea Madame Verschaffelt*, blush veined with pink, and heavily spotted with crimson on the upper segment; to Messrs. Ivery & Son, for *Azalea Beauty of Dorking*, pure white mottled with red; and to Mr. Turner for *Auricula Ensign*, a grey-edged variety, that some of the *Auricula*-growers seemed to look upon with considerable favour. The following were highly commended—viz., *Valdeva Gayana*, a dwarf herbaceous plant, having serrated foliage and spikes of purple flowers, from Messrs. Veitch & Son; *Anthurium* sp., from South America, from Mr. Bull; *Alpine Auricula*

Supreme, a rich dark self; Pansy Exquisite, white ground with broad belting of blue and purple; and Fancy Pansy Feu de Joie, mulberry with large dark blotch—all from Mr. Turner; also *Kerria japonica variegata*, a single variety with variegated foliage and pale yellow flowers; and a double-flowering Cherry from Japan—both from Mr. Standish, of Bagshot. Besides these there were a Wallflower from F. T. Graham, Esq., of Cranford, with large yellow blossoms; from Mr. Bull a flowering plant of *Urolepium Lindenii*, a curious plant, having long threads issuing from the base of the two segments forming the flower; and lastly, from Mr. Daniels, gardener to the Rev. C. R. Keene, Swyncomb, near Henley-on-Thames, there was a large vase filled with branches of *Bougainvillea glabra*, beautifully coloured, and very showy.

Quo.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE AWARDS, &c.

(Continued from page 55.)

RHODODENDRON STRIATUM FORMOSISSIMUM.—Mr. Standish: First-class Certificate May 21.—A hardy variety, of dwarf habit; the flowers rosy scarlet, the upper segment heavily spotted, the spots ranging more or less in lines.

RHODODENDRON SUWAROFF.—Mr. Standish: Second-class Certificate, May 21.—A hardy variety, with the flowers rosy carmine, faintly spotted on the upper segment, and of moderate form.

ROSE JOHN HOPPER.—Mr. R. Ward, Ipswich: First-class Certificate, June 26.—A strikingly brilliant English variety, stated to have been raised from Madame Vidot crossed with Jules Margottin, and to be perfectly hardy, and a perpetual bloomer, flowering from June to December, and bearing bunches of from ten to fifteen Roses. The flowers are full, neatly formed, remarkably bright-looking, from the contrast between the rosy crimson centre with the more rosy outer petals, and the lilac-tinted backs.

SALISBURIA ADIANTIFOLIA FOL. VARIEGATIS.—Mr. Standish: Bronze Medal, July 2.—A variety in which the leaves are rather freely striped with white.

SARMENTA REPENS.—Messrs. Veitch & Son: Silver Knightian Medal, May 21.—A dwarf trailing Chilean herb, suitable for growing in baskets. The leaves small, fleshy, oblong-convex; the flowers numerous, drooping, tubular, axillary, of a light scarlet, reminding one of those of *Mitraria coccinea*, the tube of the corolla being much inflated about the middle, very much constricted at the base, and moderately so just beneath the limb.

SERISSA FETIDA MARGINATA.—Mr. Bull: Bronze Medal, May 21.—A dwarf bushy, greenhouse shrub, of neat habit, furnished with small opposite ovate-oblong leaves, which have a distinct but narrow edge of creamy white, the base of the midrib being also of the same colour.

SPHEROGYNE LATIFOLIA.—Messrs. Veitch and Son: Silver Knightian Medal, May 21.—A fine stove shrub in the way of *Cyanophyllum magnificum*, but quite distinct; the stem erect, and both it and the stalks of the opposite leaves thickly clothed with stiff reversed brown hairs; the leaves are large, oval-acuminate, five-ribbed, with a rugose velvety surface, purplish beneath where the ribs were hairy.

STENOASTRA MULTIFLORA.—Messrs. Veitch & Son: Bronze Medal, May 21.—A pretty dwarf-tufted stove herb larger than *S. concinna*, with roundish-ovate crenate leaves, and numerous flowers springing from the crowded axils of smaller leaves which clothe the short erect stem, the flowers having a long slender tube and spreading oblique limb of a reddish-lilac colour, becoming deeper in age.

SWAINSONA VIOLACEA.—Messrs. E. G. Henderson & Son, St. John's Wood: First-class Certificate, May 6.—A handsome, half-climbing, greenhouse, Australian, herbaceous plant with smooth stems, furnished with imparipinnate leaves, from whose axils come long spikes of large violet-mauve pea-shaped flowers.

THUOPSIS LAETEVIRENS.—Messrs. Veitch & Son: Silver Knightian Medal, May 21.—A beautiful new hardy Conifer, with flattened branches like those of some elegantly-formed Lycopod; the lateral leaf-scales somewhat falcate, and the dorsal ones shorter and obtuse, the whole plant being of a lively green.

TILIA EUROPEA, FOL. ARGENTEIS.—Messrs. E. G. Henderson & Son: Second-class Certificate, May 6.—A Silver Lime tree, with boldly-marked variegated foliage, marked with a small, irregular, dark green disk, and broad creamy-white border.

VERBENA LORD LEIGH.—Messrs. Perkins & Sons, Coventry: First-class Certificate, June 11.—A very fine, handsome variety, remarkable for the large size of the crimson-scarlet flowers, which had a bright yellow eye and were of good form, the trusses being large and well-furnished.

WISGELA STEBZNERI.—Mr. Standish: Commendation, May 6.—A Belgian hybrid of compact habit, with abundant blossoms of moderate size, and of a deep rose colour.

[From a great press of matter we have been prevented publishing these useful lists of awards so promptly as we could have wished, and as their importance demands; but in future they shall appear more rapidly than hitherto. Nevertheless, though too long after the times of exhibition, they still furnish a valuable record of these novelties.—Ed. F. AND P.]

OBITUARY.

THE REV. GEORGE JEANS, VICAR OF ALFORD.

(Abridged from the *Journal of Horticulture*.)

RARELY has my humble pen undertaken a more melancholy task (so selfishly, alas! do we regard the ways of our Heavenly Father), than in conveying to many who have benefited by his remarks, or who have known his name as intimately connected with gardening pursuits, the news that my valued friend whose name heads this notice has gone from amongst us.

It is now some years since that the cause of one of our great religious societies in which I was interested, led me to visit Alford as its advocate. I was then a stranger to the Vicar, but had been assured that I should meet with a hearty welcome. In this I found that my information had been correct; my work's sake was sufficient to insure me that.

On the following morning, taking, as is my wont, an early stroll, I espied in the garden a frame of Auriculas then coming into bloom. This soon led us to touch upon another subject on which we had common sympathies. And as each recurring year led me to Alford, and other opportunities of meeting one another were afforded us, our acquaintance ripened into friendship; and I have for many years esteemed it a great privilege to number amongst my friends one who was so fine a type of an English gentleman, a ripe scholar, and a Christian pastor, as my late revered friend.

Distinguished in early life, when scientific pursuits were not so much in vogue as they are now, for his attention to philosophical inquiries, astronomy (on which he published an excellent and most readable treatise), geology, chemistry, &c., found in him one who appreciated their value and could bring them practically to bear. These studies he never allowed to pass out of sight. He eagerly read all that was really valuable in connection with them; and no way led astray by injurious theories which had no foundation better than a "hypothesis," he was yet by no means opposed to whatever new light advanced knowledge on these subjects from time to time produced. He was not one of those who believed that God's words and God's works are contradictory. He did not consider it derogatory to Science to regard her as the handmaid and not the mistress of Revelation; and works of a contrary tendency were regarded by him as hurtful to the cause of truth as well as of science.

His transit instrument on the lawn, his geological specimens, and lectures delivered only last year, clearly showed that these earlier pursuits had still their charm for him; while his conversation on these and kindred subjects showed how fresh were still his thoughts and feelings. But it is as connected with floriculture that his name will be especially regarded by the readers of *The Journal of Horticulture*. For many years under his *nom de plume* of "Iota," latterly, since his friend Mr. Edward Beck's death, exchanged for his real signature, he contributed largely to various gardening publications. His philosophic mind could only view even floriculture in this aspect; and I have always felt that it was something for florists to be able to number amongst them one who did not think flowers, despised by many scientific persons, as unworthy of his notice. When Mr. Beck in 1848, disliking the tone that then pervaded gardening literature, determined on starting a periodical in which a better spirit should prevail, he summoned to his aid, for the columns of *The Florist*, the Vicar of Alford; and I may be excused for referring to a notice in the volume of that work for 1861, prefixed to a touching notice, written at my request, of his friend's death—all the more so as he has so soon followed him:—"It would ill become us to add anything to the very interesting account that he has given of the life and character of his deceased friend; but we may say that which his modesty forbids him saying himself—that the pages of *The Florist* in those days to which he refers owed a great portion of their attractiveness to his own writing. Page after page bears the evidence of his clear and graphic pen, even where his signature appears not."

While the wide field of information over which my friend's discursive fancy could roam, enabled him to grapple with many subjects connected with gardening, it was of the Auricula he chiefly delighted to write. It was his pet, *par excellence*, and a collection unsurpassed for variety testified to the energy with which its cultivation was carried on. His judgment was sound; for as a thorough florist he admitted no restriction of rules, ruthlessly consigning to the border flowers unworthy of the stage; and when admitting varieties that were not excellent in their character to a place in his frames, assigning as his reason the real cause of

his doing so. In the proposition of a National Auricula Society he was deeply interested, and, when I first proposed it, was one of the first to welcome it by his promised aid; and when the project was taken up by Mr. Douglas and carried out, he gave his earnest support. The last paper I think that he wrote was a short one for the *Floral Magazine*, in which he alluded to the forthcoming Exhibition at York, and expressed his wishes for its success. Of late years he had more frequently contributed to other periodicals; and some most reliable notes on his favourite flower will be considered by connoisseurs as a favourite authority.

He will be, indeed, a great loss to the gardening community, and will be long remembered as one of those who have given a healthy stimulus to floriculture. And I cannot forbear saying, that when, some years ago, through the carelessness of an old man whom I employed, my embryo collection was lost, and I had determined to abandon their growth, it was he who urged me not to do so; and by his own liberality and that of others whom he interested I was enabled to begin again; and whenever he could do so he always was ready to add to it some choice sort of which he had a small piece to spare, for a more liberal florist I never knew.

Deal.

D.

REVIEW.

The Rose Garden in Two Divisions—I., Embracing the History of the Rose, Formation of the Rosarium, Cultivation, &c.; II., the Most Esteemed Varieties of Roses with Full Descriptions and Remarks on the Origin and Mode of Culture. By WILLIAM PAUL, F.R.H.S. Second Edition, 8vo. London: Kent & Co.

THIS is a new edition of Mr. Paul's Rose Garden, which first appeared some years ago in a much larger and less portable form. We by far prefer this second to the first edition. It looks a more handy and more manageable volume, and has not so much of the drawing-room character about it which the first edition had. We think, too, that in dispensing with the coloured plates Mr. Paul has followed a wise course; they were portraits of subjects, many of which have but a short-lived interest, and so much increased the price of a book which many would like to consult, as to exclude it altogether from their possession.

This second edition, then, is just such a book as we should like to see on such a subject from such an author. Engaged all his life in the cultivation of this, one of his favourite flowers, we look to Mr. Paul as a faithful guide in all matters affecting the Rose and Rose-culture. Need we say that in this confidence we are not disappointed on a perusal of the work before us? In chapter I. everything relating to the history of the Rose, in which Mr. Paul shows no small amount of learning and research, is presented in the most agreeable and interesting form; chapter II. furnishes us with instruction as to the Soils and Manures best adapted for its Cultivation; chapter III., the Formation, Arrangements, and Grouping of the Rosery; chapter IV., the Choice and Arrangements of Varieties, and Remarks on Planting; chapter V., the Planting, Pruning, and Disbudding; chapter VI., Hybridising; VII., Raising and Treatment of Seedlings; VIII., the Cultivation of Roses in Pots; IX., Forcing; X., Operations of the Rose Garden; XI., Propagation; XII., on Tea-scented Roses; XIII., on the New Roses; XIV., on Exhibiting; XV., Select Lists of Kinds Suited for Various Purposes. This includes the first division of the work. The second division is devoted to the different species that furnish our garden varieties, and their races. Had our space permitted we should have made some extracts from the descriptions that are given of the various groups; but our readers may rest assured that they are both excellent and interesting. Following the descriptions of the groups, we have descriptive lists of the best varieties in each group. The appendix which concludes the book is an excellent and well-illustrated paper on the botany of the Rose.

This is a handsome handy volume, practically written, and copiously illustrated with numerous well-executed woodcuts, and cannot fail to meet with the reception its merits so highly deserve.

CALENDAR OF OPERATIONS.

CONSERVATORY.

ATTEND well to the watering—most plants will now require liberal supplies. Give abundance of air in fine weather. Tie-up climbers as they advance in growth. Shading will now be necessary to prolong the beauty of the flowering plants, but care should be taken not to injure or weaken plants that are making young growth. Syringe daily plants not in flower. See that every plant is clear of insects.

GREENHOUSES.

HARDWOODED PLANTS.—Shade in bright weather plants in flower. Attend well to the watering, and ventilate freely. As the plants go out of bloom attend to picking-off the seed-vessels. The young plants potted early will now be growing freely, and should have plenty of air. Stopping, tying-out, and training the shoots will now be daily necessary. Syringe the plants daily, and water well when required. Shift

into larger pots when they need it. Keep a stock of soil, plenty of clean pots, crocks, and sticks always ready. **SORTWOODED PLANTS.**—*Pelargoniums*.—The early plants will now be trussing-up for flower, and should have every care bestowed on them. Give them some weak liquid manure two or three times a-week. Guard against green fly by fumigation. Give air freely in fine weather. Shading will be necessary in bright hot weather, as they come into flower. Keep the late-flowering plants well tied-out. Give them plenty of air and liberal supplies of water. *Scarlet, Salmon, Horseshoe, and Variegated Geraniums*.—If not already done, a good stock of cuttings of these should be put in—they will be found very useful for autumn and winter decoration. They should be kept in rather small pots, and the soil for potting them should not be too rich. *Cinerarias*.—For flowering plants attend to the directions given last month. Continue to pot-off seedlings. Those potted-off last month will now require a shift. They should be grown in pits or frames having a northern aspect. Attend well to the watering, shift when they require, give them plenty of air, and keep them clear of insects, and they will make stiff strong plants and be very useful during the autumn and winter. *Calceolarias*.—Attend to the training and tying-up of the shoots as they advance. Be careful in watering. When they require it give sufficient to moisten the whole of the soil. *Fuchsias*.—Those that had their final shift last month will now be growing freely, and must be well supplied with water. After the pots get pretty full of roots, give them some weak liquid manure two or three times a-week. Shift plants for late flowering. Keep them shaded and cool, and syringe daily to keep a moist growing atmosphere.

STOVE.

A moist growing atmosphere is now indispensably necessary for the welfare of the plants. Under the influence of a high temperature they get eaten up with red spider if a due degree of moisture is not maintained. See directions last month.

PITS AND FRAMES.

As these become emptied of the "bedding" plants they will come in very usefully for the growth of seedling *Cinerarias*, *Calceolarias*, *Verbenas*, *Petunias*, *Salvias*, *Fuchsias*, *Roses* in pots, *Balsams*, &c. Pot-off seedlings and cuttings. Stop established plants, and shift when they require it. Keep a moist growing atmosphere.

FLOWER GARDEN.

About the middle of the month, if the weather be favourable, commence planting-out the "bedding" plants, putting out the harder kinds first. *Variegated, horseshoe, and scarlet Geraniums* are very effective; and in dry, warm, sheltered gardens cannot be too freely used. Attend to the staking and tying of hardy perennials as they advance in growth. Prick-out *Asters*, *Stocks*, &c., in beds preparatory to their being finally planted. Sow annuals and biennials. Cuttings of *China Roses* now put in will soon make fine plants. Protect *Tulips* and other florists' flowers from the midday sun, the rain, and the winds. Propagate by slips double *Wallflower*, *Rockets*, &c. Keep the surface of the soil well stirred about all plants. Hoe, rake, and clean borders. Clip Box-edgings. If required, Box-edgings may be planted. Keep the glass well mown. Clean and roll walks. *Pleasure Grounds*.—This is a good time to plant Conifers. In dry weather keep all newly-planted trees well syringed and watered. Mow the lawn every week or ten days.

FORCING.

FRUIT.—*Pine Apples*.—Pay every attention to the summer fruit now swelling. Water well when required. Give air freely in forenoon on fine days, and early in the afternoons. Syringe the plant and close-up the houses. All the heavy fruit should be supported by stakes, otherwise they will lean downwards and the crown will grow crooked. Watch the bottom heat well—keep it about 85°. The temperature of the house may range from 70° to 75° by night and 85° to

90° by day. The plants for fruiting next winter should now be shifted into their fruiting-pots. See they have a regular bottom heat, and be encouraged to grow freely. Most of the young *Stocks* shifted in March will now require another shift. Let them have a bottom heat of about 85°. Keep up a moist growing atmosphere: a temperature of about 70° at night and 85° during the day, with an increase by sun heat. Give air freely on fine days, and be careful not to give them too much water. **VINES.**—In all houses where *Grapes* are approaching maturity fire heat is necessary to keep a proper temperature. Air should be given freely during the day and a little by night. In succession-houses attend to our previous directions. Maintain a dry atmosphere and a proper temperature in the late houses whilst the *Vines* are in flower. Attend to the stopping and tying-down of the shoots. *Peaches* and *Nectarines*.—When the fruit in the early house begins to ripen maintain a drier atmosphere and give all the air possible. Remove any leaves that cover the fruit, that it may get the full influence of the sun on it. Much watering will not now be necessary; but the trees in the inside borders must not suffer for want of it. In succession-houses persevere in syringing the trees and keeping up a moist atmosphere. Give air freely. Water well inside borders. Thin, stop, and tie-in the shoots. *Figs*.—Maintain a moist atmosphere. Keep plants in tubs and pots well watered. Syringe frequently, but be careful to avoid wetting fruit that is approaching ripeness. Give air freely. *Cherries*.—Give plenty of air, and water sparingly, as the fruit approaches maturity. After the fruit is gathered remove the trees, and see they are attended to in being syringed frequently and kept well watered. *Strawberries*.—Introduce a fresh lot of plants once a fortnight for succession. Attend to previous directions. *Melons*.—Keep the shoots well stopped and thinned out. Place the fruit on piece of tile, slate, or glass. Let them have plenty of light. When necessary, give water freely. See there is always a proper bottom heat. Plant out for late crops.

VEGETABLES.

Marjoram and *Basil*.—Harden-off and plant out. *Tomatoes*.—Harden-off and plant out. *Gourds*.—Harden-off. *Kidney Beans*.—Attend well to stopping the plants. Water freely and syringe gently. *Cucumbers*.—Keep a nice bottom heat, and a warm growing temperature. Thin the shoots well, and water when required.

HARDY FRUIT.

The late fine dry weather we have had has been very favourable for the fruit crop. Bush fruit promises to be very abundant. *Strawberries* are looking well. *Apricots* will be an average crop. *Peaches* and *Nectarines* have set well, and will be abundant. *Plums* have been very full of blossom, and appear to have set. *Pears* also promise to be an average crop. *Apples* in general do not promise a great bloom. Attend to the thinning of *Apricots*, *Peaches*, and *Nectarines*. Disbud carefully, removing a few at a time and going frequently over the trees. Give the trees a good syringing occasionally.

KITCHEN GARDEN.

The long continuance of dry weather we have had has been very favourable for destroying weeds, but rather unfavourable to the germination of seeds. Attend in time to the thinning of the young crops. Take advantage of showery weather to plant early *Celery*, *Cauliflowers*, *Cabbages*, *Lettuces*, *Savorys*, and *Brussels Sprouts*. *Peas*.—Continue to sow for succession some of the best late sorts. *Beans*.—Sow for succession. *Carrots* and *Parsnips*.—Thin as soon as they are large enough. *Beet*.—Thin early crops, and sow for succession. *Salvify* and *Scorzonera*.—Sow for succession. *Turnips*.—Thin and sow for succession. *Potatoes*.—Earth-up. *Kidney Beans*.—Sow for general crop. *Spinach*.—Sow for succession. *Lettuces*.—Sow for succession. *Onions*.—Thin-out and hoe between the rows. *Parsley*.—Sow in sheltered situations. *Asparagus*.—Cut as they become fit.—M. S.



Mimulus Maculosus

1 Charm. 2 Marvel. 3 Startler.

MIMULUS MACULOSUS.

WITH AN ILLUSTRATION.

THE yellow Monkey-Flower, *Mimulus luteus*, had already made us familiar with a race of spotted garden varieties, ere, a year or two since, Mr. Veitch introduced from Chili a dwarfer-habited plant of the same family, bearing bright coppery red flowers, to which the name of *Mimulus cupreus* was given. The spotted varieties we allude to, though varying in the size, colour, and disposition of their markings, yet agreed in this, that either on each of the five segments of the corolla, or on the lower segment only, there was a large blood-coloured blotch, often, indeed, occupying the whole of its surface. Various irregular blotchings were sometimes superadded; and, as is the case usually with flowers taken in hand for improvement by our energetic cultivators, the size of the blossoms was very much increased.

When *Mimulus cupreus* was let out by its introducers, and came into the hands of other growers, the happy thought occurred to Mr. Bull of trying the effect of a cross between it and some of the large garden varieties. One called Gaiety was selected for the purpose; the two were intercrossed, and during the present spring a great number of these cross-bred seedlings have been blossoming in Mr. Bull's Nursery, Chelsea, whence our illustration has been derived. Some, and these were the earliest to flower, are represented by those we have selected for figuring, and are of somewhat stronger habit, though less vigorous than the common Monkey-Flowers, whose stature has been reduced by admixture with the smaller *cupreus*. Others, crossed in the opposite direction, are dwarfer, more like *cupreus* itself in this respect, and they are later in blossoming, being only just coming into flower. So far as they have yet produced flowers, these appear to have their colours less affected by the cross than in those of the larger-growing series.

What the general peculiarities of the marking and colouring of these new varieties are, will be best seen from our figure, in which they are very faithfully transcribed, though from being sketched from plants which had been drawn up in a greenhouse, they are shown longer-jointed than is natural to them under ordinary conditions. It will be seen that instead of large solid blotches of colour, the markings are either broken up into irregular spots scattered over the surface, or into finer dots, which are so arranged as to form a more or less distinct belt. In some of the plants, as in the variety called CHARM, represented at *fig. 1*, this dotting is very distinct and beautiful; while others, as in MARVEL, shown at *fig. 2*, have the spotting heavier and more confluent, the result being a darker but not less showy flower. This variety, the only one of which a plant has been exhibited before the Floral Committee up to the date at which we write, has had a First-class Certificate awarded to it by that body, the award being not intended, as we understand, to distinguish this as the most meritorious of the series, so much as to mark with approval the successful essay which had been made by the raiser in breaking up new ground, so to speak, and by means thereof decorating our gardens with a new race of flowers, which are veritable Spotted Monkey-Flowers. The variety shown at *fig. 3*, called SPARKLER, is one with the spotting still more coalescent, the spots being run together into irregular-shaped blotches. In all cases the markings are of some shade of the coppery red of the parent *cupreus* on a clear yellow ground.

There are, besides, many other variations in respect to the size, and number, and position, and colour of the spots; but the sorts we figure give a good general notion of their leading features of the whole series. The plants, as hardy free-growing perennials, will be welcome everywhere, and may be managed in the same way as other garden Mimuli.

M.

THE APRICOT.

As there have been of late several interesting discussions by eminent horticulturists in the *Journal of Horticulture* on Apricots setting their fruit and ripening on walls and in orchard-houses, I take the liberty of drawing further attention to the subject through the pages of the FLORIST AND POMOLOGIST.

I consider if gardeners would give a public detail of any particulars they have observed in their practice in the cultivation and treatment of the Apricot, it might be very advantageous, and at the same time might be the means of much enlightenment on the subject. I consider the Apricot will do best in a soil that is rather strong and adhesive, with a dry bottom for a subsoil; but, if grown in a light soil, I believe it would do exceedingly well if the surface could conveniently be flagged over with stone, as that would enable the soil to retain the moisture, and at the same time encourage the roots nearer the surface, where they would receive the influence of heat and air. Where flags could not be conveniently obtained, a layer of clay on the surface, for a good many feet in circumference around the stem, would do equally well.

The Apricot is rather liable to drop its fruit if it lacks moisture at the root. I have found it likes several good waterings of soakage when the fruit is swelling. Our garden here is under the influence of the sea air, is about a quarter of a mile distant from the Firth of Forth, adjoining the German Ocean, and it is about 80 feet above the sea level.

I have never but in one instance, which I shall describe further on, lost any limbs or branches from my Apricots, going off apparently like a paralytic stroke, in Scotland. When I lived in Warwickshire, I have had it very frequently occur, particularly with the Moorparks, although the soil there was a strong clay. The trees were planted on east and west aspects. Those I grow here in Scotland are all on the south wall exposure.

I have one Apricot tree on the west aspect—a Moorpark. This scarcely ever ripens a fruit fit for any, except kitchen, use. This season (1863) I have not a single bloom on it. This I entirely attribute to the wood not being matured the previous autumn—a great desideratum in all fruit trees, and particularly Apricots and Peaches.

I am not aware of any author who does confidently assert the cause of branches and limbs dying-off instantaneously, which frequently occurs in some gardens and localities, nor do I at all assume to be able to do so; but as they generally every season ripen, their wood, even on west and east aspects in England, I question if trees growing robustly, and some, perhaps, on a cold subsoil, are matured to meet all contingencies, as gum, dying-off, &c.

I have never grown Apricots in pots. I question if branches go off so frequently on them, if attended to. I have grown Peaches in pots, and I am convinced they are not so liable to gum, or die off in the branches; and the reason, I conclude, is that their wood is generally well ripened and matured.

I remember the severe winter that almost destroyed the constitution of stone fruit trees, Peaches in particular. That autumn I had some fine, healthy, young Peach trees grown on a south wall. These all gummed, and did no good after that shock of their constitution. I had occasion to plant a few Peach trees on the same wall which had been grown in pots. These were planted in the autumn, alongside the others. Well, these from the pots withstood all the rigours of the winter uninjured, which is positive proof that all delicate fruit trees, not natives of our climate, should not be robustly grown, but rather the reverse.

I have some Apricot trees here nearly fifty years old. One of these is on a south wall, but not fixed or heated. When I entered this place nearly eighteen years ago this same tree was almost gone or worn out. I immediately took away all the earth from its roots, likewise undermined it all, cut a portion of its under-roots, and gave it a dry bottom; added fresh suitable soil on the top of that, put a layer of good manure, then a layer of clayish soil. I have since then more than once cut-in some of its roots and added a portion of new soil, and I did this when I saw the wood was getting weak. In 1861 I had a splendid crop on this tree. Indeed, it seldom ever fails; but I could not ripen them, not having command of artificial means. Again, the following season, 1862, I had but a small crop. No doubt the wood was not well matured, the season being indifferent; and this spring, 1863, there is only a sprinkling, in comparison to some seasons of bloom. I have never seen so little blossom on the Apricot trees as there is this season, no doubt arising from so very bad an autumn as we experienced last year.

There is an Apricot wall here heated by two fires. Two Apricot trees occupy one-half of the space; the other fire heats the space covered by a Fig tree and an Apricot. The above Apricot trees were about eight years old when I came here. I lifted them, took out the soil, and put in 18 inches of rubble stone, concreted that over, and made up a border about 2 feet and $1\frac{1}{2}$ deep. I replanted the trees, after partially cutting their roots. In good seasons I do not apply much fire heat to the space where the two trees grow, only a little to mature the fruit in dark autumns; but on the space where the one Apricot and a Fig are, I fire a good deal every season to ripen the Figs. I have cut the roots severely in several times of the Fig tree, as I have remarked, to keep the wood in check. The Apricot tree in this space unfortunately is planted where the fire enters. This is where I had a limb die off one season; but I assume the cause was from too great a heat. The person in charge of the trees had one warm day rather over-heated the flue.

I have noticed with particular interest this same tree that is regularly fired every season, along with the Fig tree, is unfailing in producing a crop. One season I particularly remarked that the two Apricot trees on the opposite end, not being fired the previous autumn, had very little blossom on them. They were covered with frigi domo in spring and were regularly uncovered when weather permitted. The same set very indifferently, and scarcely a fruit was on them.

Now, the tree which neighboured the Fig, and was regularly fired, that got no covering whatever, all the blossom set admirably on it. I have tried all experiments with covering. On one occasion I had a light covering of spruce branches put on. I found the buds and bloom became weak, and a sort of blanched fly soon attacked them when covered. On examination I found where there was no covering the wood, buds, and leaves were more robust, and the fruit set better. Therefore, I consider if the wood was well matured the previous autumn no covering is requisite, unless in severe frost. I think the most convenient covering to be a coarse woollen netting—say about six-eighths of an inch in the meshes that might remain on permanently in severe weather.

Another instance I have formed from proof in this same tree, which, in a great measure, confirms my belief that all fruit trees ripen their wood best when in close contact with the wall—I mean not trained on trelliswork, as it encourages a cold current. This tree being planted where the fire enters, it is too hot for the branches without being kept some distance off; therefore, for 4 feet deep there is a wire trellis 3 or 4 inches from the wall. On this portion I seldom ever have a single blossom where the branches are away from

the wall. I would prefer it glass-covered, the trees trained close to the same, to any temporary orchard-house, particularly for Peaches. These temporary orchard wooden-houses cannot absorb and retain heat sufficient to mature tender fruits, particularly in dark summers. I never have had any practice in growing the Apricot under glass; but I think it surely could be made practicable by having the sashes made so as they could be entirely taken off at pleasure at certain seasons. Mr. Thomson, at the Duke of Buccleuch's, has got a splendid covered glass wall; one-half is adapted to Apricots, the other to Peaches. Therefore, a person of his experience will be able shortly, I hope, to give practical information as to whether the Apricot can be successfully grown under glass or not.

Dalmeny Park Gardens.

WILLIAM MELVILLE.

CULTURE OF THE ANÆCTOCHILUS.

THIS tribe of pretty little plants deserves far more extensive cultivation. As they are mostly all natives of Borneo, they consequently require a great amount of heat, moisture, and shade; but any one that has got an Orchid-house or stove may grow them with very little trouble. I have grown them many years with success; and as they are a tribe of plants I am rather partial to, I have tried several different ways of growing them; but the following I have found to be the most successful:—The soil I use is one-half good fibrous peat broken up in small lumps, with the fine sifted out; sphagnum moss chopped-up, one-quarter; crocks and charcoal broken up fine, one-quarter, with a good sprinkling of silver sand, all well mixed together. For specimens I use pans 12 inches diameter by 4 deep, perforated in the bottom. The pans are half filled with broken pots to make sure of good drainage; over this a layer of sphagnum moss; then fill up the pans with the above compost 2 inches above the rim, pressing the soil with the hand into the shape of a mound; then put in the plants at equal distances. The number will depend on the size of the plants. On the top of the soil under the leaves I place a few sprigs of *Lycopodium denticulatum*, which makes a fine contrast with the beautiful foliage of the *Anæctochilus*. I likewise find the *Lycopodium* very beneficial to the growth of the *Anæctochilus*: as I always grow them under bell-glasses, the *Lycopodium* is sure to grow rapidly in such a situation, and absorbs much of the condensed moisture under the glasses. I grow them always on the front shelf of the Orchid-house near the glass. I never give any air to the glasses, but shade with paper when the sun is on them during the summer months. The bell-glasses must be kept perfectly clean; if they are allowed to get dirty the plants will soon become sickly. I invariably wash the glasses twice a-week in the morning, and water the plants if they require it, leaving the glasses off for an hour or so that the foliage may get quite dry before the glasses are replaced. During the season of growth they require a good supply of water, especially during the summer months. They require but little rest: this I generally give during December and January. During the time of rest I give but little water—just as much as keeps the soil a little moist on the top. I pot them afresh once a-year, and some of them twice—that depends on the propagation, which I shall mention afterwards. The time of potting depends on the time of rest. I pot always when I start them into growth, which is generally about the end of January. To grow the plants single, one plant in a pot, they require exactly the same treatment, with the exception of the pans. I use 60-size pots, large or small, according to the size of the plants, plunged in a larger pot, so that the bell-glass will fit the outside pot to give room for

the leaves. The surest way of propagation is to cut the plants into pieces with a root attached to each, and treat them exactly the same as the above. This is done when the plants are potted; some of the sorts will propagate much freer than others. *A. striatus* will propagate nearly as freely as a *Verbena* by cutting it under a joint without any root attached to it. I have propagated some of the other sorts in the same way, but not with much success. If necessary to increase any particular sort the plants may be cut up twice or three times a-year: this I find is best done by cutting the stem of the plant under the first or second joint halfway through, and cover the cut over with the soil. It will root above the cut in a very short time; if the plant is in good health when rooted the top may then be taken off and potted, leaving the bottom part of the plant, which will soon throw up another young shoot, and may be taken off in the same way. I shall not intrude on your valuable space with a list of the species, I can only add that they are all gems, and well worth growing. I see Mr. Veitch, of the Royal Exotic Nursery, Chelsea, in addition to a magnificent collection of the above, has got a new variety of *Anæctochilus* imported from Japan, some of them are very pretty, and will doubtless prove much hardier than the other sorts. I think they will be an acquisition, as they may be grown in a much lower temperature.

Highgrove, Reading.

A. INGRAM.

GRAPES ALL THE YEAR ROUND.

For the last three years I have not been without a bunch of Grapes for my employer's table any day in the year. This year we commenced cutting new Grapes the 25th March. At the same time we had plenty of Lady Downe's, West's St. Peter's, Barbarossa, and true Old Tokay of the previous year. The latter I consider the best late White Grape. What some people persist in calling Tokay is only the Muscat of Alexandria, or a form of that variety. When I say late Grapes, I mean good plump fruit the last week in March. Grapes in January are considered late by some persons. I think a great deal of the Old Tokay when allowed plenty of time to ripen. It ought to be highly recommended as a White companion to Lady Downe's, the best late Black with me. Trebbiano is a most excellent winter Grape, but after January it will shrivel. Raisin de Calabre is another fine late Grape. I knew it well when at Chiswick, some eighteen years since. I was in hopes I had it true here; but, unfortunately, my Vines proved to be Sahibee, a worthless kind.

Which is the best early White Grape? Muscat Hâtive de Saumur promises well with me. We have it now (May 15th) almost fit for table from Vines started January 1st. This Grape has the true Muscat of Alexandria flavour, and the advantage of ripening so early. The next best White I find to be Buckland Sweetwater. With me this season it is all I could wish, which I hope to be able to prove next month at some of the metropolitan exhibitions.

For a supply of Grapes all the year round we have seven established vineries. The early houses are lean-to 30 feet long by about 12 wide, large enough, I consider, for early work. It may perhaps interest some of your readers to know the different sorts in each house, and the time of starting to secure a constant supply the whole year.

No. 1.—The earliest house. All Frankenthal, or by most people called Black Hamburg. Generally breaks of its own accord towards October; fruit fit for cutting March 25th.

No. 2.—Started 1st of December. Black Hamburg, Buckland Sweetwater, and Black Prince, the former fit for cutting the middle of May.

No. 3.—Started January 1st. Black Hamburg, Black Prince. Lady Downe's, grafted on the Hamburg, comes in very useful after the latter is over; and Muscat Hâtive de Saumur for a White. This is a large house, and furnishes a supply from middle of June till early in August.

No. 4.—Started end of February. A selection of sorts, with Hamburgs for the principal Vines, ripe August and September.

No. 5.—Break of own accord. All Hamburgs, ripe generally early in September. I find for them to hang well they ought to be ripe by the middle of September. I find they keep much better ripened by this time than later. From these Vines we have a supply for November, December, January, and some seasons as late as the end of February.

No. 6.—Started March 1st. All Muscat of Alexandria.

No. 7.—Latest. Barbarossa, West's St. Peter's, Lady Downe's, Old Tokay, and Trebbiano. This house has but little rest—just sufficient time to wash or paint the inside, top-dress the border, &c. The fruit is always hanging on these till the middle of March. Some growers recommend cutting the bunches off, sealing the ends, and suspending in fruit-rooms or some cool place; but I find if they will not keep on the Vine they will not off.

The same result may be obtained from six vineries, with care in making the selection for each house, for early, late, or intermediate. To our No. 1, I should recommend Muscat Hâtive de Saumur and Buckland Sweetwater for Whites; and to No. 7, the latest, a Vine of Kempsey Alicante and Burchardt's Prince. The latter will be planted extensively when better known. Such is my practice for a supply of Grapes all the year round, and we generally succeed in producing good fruit.

Keele Hall Gardens.

WILLIAM HILL.

VAPOUR FOR VINERIES AND PLANT-STOVES.

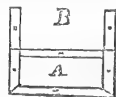
I HAVE seen many plans tried—some have troughs cast on the flow-pipes, others zinc troughs with half-circular bottoms to fit over the pipes, and others use brick ones; but in my opinion neither of the above plans is effective; and unless the pipes are almost on a dead level they are useless. Mr. Thomson in his excellent "Treatise on the Vine" gives a plan for producing steam, which he says answers admirably. I do not doubt this; for as far back as 1835 I had at work in a fruiting-Pine-pit one like it, with the exception that the return, which I carried into the return-pipe to the boiler, instead as Mr. Thomson's into the same pipe.

Mr. Bailey, who, I believe, heated the extensive range of houses in the gardens of Her Majesty at Frogmore, came down to Salisbury (by coach in those days), to see it at work; but whether he improved upon it I have not heard. I found it inconvenient where stands were required over the pipes; also, you must have your feeding-cistern and trough exactly upon a level.

For several years I had in a fruiting Pine-pit, also a Cucumber-house, a one-inch wrought-iron pipe let into the flow-pipe at one end of the house, from thence through an open cast-iron shoot 4 by 3 inches into the return-pipe at the other end. This answered in every way to my satisfaction.

In a rather extensive range of houses at present being erected for Sir J. H. Greville Smyth, Bart., by Messrs. Weeks & Co., under the able directions of their architect and manager, Mr. Deal, I am carrying out the same system; but had I come here a little earlier I should have improved upon it by dis-

pensing with the one-inch iron pipe, and having troughs cast with what might be called two bottoms thus, with flanges and screw-holes at every 6 or 9 feet. A would be the water circulating from the boiler, B the water for producing vapour; they are easily attached to the flow and return pipe by one-inch wrought-iron pipe at both ends, and lead pipe in the middle, which can be bent in any direction.



Ashton Court Gardens, near Bristol.

W. DODDS.

PREJUDICE.

UNDER the heading of "Prejudice," in your last impression, are remarks made by a gentleman well known in the floral world touching chiefly upon fruits grown under glass, and the causes why these crops are so often failures. I, as a subscriber to your valuable publication and a horticulturist, cannot agree with your correspondent in some of his remarks. Doubtless the rev. gentleman is an ardent admirer and supporter of horticulture. This, I think, no one connected with gardening will deny; but when he attributes the causes of the failings of in-door crops always to the cultivator, I think he is going rather too far. Doubtless there are instances of this kind to be met with; but I trust the cases are rare. In bringing a case under your notice in support of my cause, I will refer no farther back than to the present spring. I know a glazed Peach-wall on which there are several fine healthy trees, all of which bloomed well, and each received the same attention as regards their supply of air and water; but, after all possible care and attention had been bestowed upon them, only one tree set its blossom properly. Now, I think no reasonable person will blame the man in charge of these trees for the non-setting of the blossom, for I am sure in every respect duty was done to them, and the result is what I have said. This is only one out of the many instances I could adduce to prove that the statement referred to is incorrect.

My object in making these remarks is that gentlemen who are in the habit of perusing the pages of the *FLORIST AND POMOLOGIST* must not be too hasty in condemning their gardeners for the mismanagement of that over which they, to a certain degree, have no control.

Methley Park, Leeds.

W. T.

CULTURE OF TROPICAL ORCHIDS IN THE OPEN AIR.

WE have always said that tropical Orchids are too much coddled. They have generally been subjected in this country to far too close a temperature; and we believe some of our leading cultivators, such as Mr. Veitch, of Chelsea, have for some time past discovered that such treatment has not been the correct one. As a further proof of this, we read in *La Belgique Horticole* that M. Bouché has made, in the Botanic Garden at Berlin for many years, a great number of experiments on different species of tropical Orchids, with the view of making them stand out in the open air. For this purpose he made, in a shady place protected from the wind, a bark bed about 2 feet deep. On this bed he placed these tropical Orchids and left them there, without any other protection and without any other artificial heat, from the month of June till September. The intense green colour which the leaves assumed in this situation, the vigour with which they formed their pseudo-bulbs, have shown to every one the advantages of this form of treatment. Thus placed in the open air *Epidendrum tovarense* and *Acropera Loddigesii* have flowered.

Other species, as *Stanhopea oculata*, *Lycaste Skinneri*, and *Odontoglossum grande*, have developed their flower-buds. The result of these experiments shows that tropical Orchids are much more hardy than they are generally supposed to be.

ARAUCARIA CUNNINGHAMII, OR LANCEOLATA.

THIS, in my opinion, cannot ever become a very favourite ornamental tree. In the first place it is not generally hardy; and where it does live and make an annual growth when planted to the exposure and vicissitudes of all weathers, it wears a very rusty appearance many months in the year, through its aptitude of making late autumn growth. One plant here planted high and dry amongst the rocks in a rockery and well sheltered in every direction and pretty much shaded, maintains its colour throughout the year well, and has rather a nice and exotic appearance. This tree is about 25 feet high, and has produced cones for several years. I have also seen a nice healthy plant at Sir Thomas Ackland's, at Killerton.

Bicton.

JAMES BARNES.

BRITISH QUEEN PEAR.

WITH AN ILLUSTRATION.

It always affords us infinite pleasure to be able to announce the appearance of a new British fruit of real merit. We have been so far behind our continental neighbours in raising new varieties to any extent, that it is gratifying when we hear of any new success in this branch of horticulture. While it is true that we have not raised so many new varieties of fruits as our industrious pomological friends the Belgians have done, still the labours of our own pomologists have not been without their reward. The Apples and Pears of Mr. Knight, of Downton Castle, and Mr. Williams, of Pitmaston, stand out prominently as some of the best fruits of their class; while the persevering labours of Mr. Rivers among Peaches and Nectarines have met with a singular measure of success.

Mr. Ingram, gardener to Her Majesty at Frogmore, is one of the few professional gardeners who have directed their attention to the hybridising and raising of seedling fruits. The subject which we now bring under the notice of our readers is one of his raising. A few months before the decease of His Royal Highness the late Prince Consort, some of the fruit was sent to Her Majesty at Balmoral. His Royal Highness was so pleased with the fruit that he characterised it as the best Pear he had ever tasted.

The fruit is large and pyramidal, somewhat undulating in its outline, and very handsome in its appearance. The skin is smooth and shining, of a fine golden yellow colour, freckled with patches of thin delicate cinnamon-coloured russet, and with sometimes a blush of lively crimson on the side which has been much exposed to the sun. The eye is small, with short, narrow segments, and set in a considerable hollow. Stalk about an inch long, stout, sometimes obliquely inserted, but generally straight with the axis of the fruit, and inserted in a round narrow cavity. Flesh yellowish-white, very fine-grained and buttery, with an abundance of juice, which is rich, sugary, and piquant, and with a fine aroma.

A very excellent dessert Pear, ripe in October. It received a First-class Certificate from the Fruit Committee of the Royal Horticultural Society, and the stock is, we believe, in the possession of Mr. Turner, of Slough.



British Queen Pear.

THE METROPOLITAN EXHIBITIONS.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, *April 25th*.—This was the last of a series of these very successful Spring Shows—meetings that have wonderfully increased in extent since I first attended one in 1859. If thus they enlarge themselves, another wing of the large tent will have to be allotted to them.

On this occasion Roses in pots, and in boxes of cut blooms, were the prime features. With the former, Mr. W. Paul was first; Messrs. Paul & Son, and C. Turner, were equal second; and Messrs. H. Lane & Son third. Fancy a prize of 40s. at a spring exhibition bringing together all these great names in the annals of Rose-culture! There were good blooms of H.P.'s Beauty of Waltham, Senateur Vaisse, Victor Verdier, Madame Boll, Empereur de Maroc, Anna Alexieff, &c., on the plants that were in pots; while the panorama of boxes of cut blooms were studded with beautiful flowers of many favourite kinds.

Mr. H. Lamb, of Southall, was first with six Cinerarias in the Amateurs' Class, having well-bloomed plants of Adam Bede, Modestum, Duke of Cambridge, Lady Seymour, Bridesmaid, and Queen Victoria. Second, Mr. Smith, of Syon House, with some seedlings. Mr. Turner was the only exhibitor in the Nurserymen's Class for the same number of plants, having good specimens of Reynolds Hole, Slough Rival, Maid of Astolat, Miss B. Coutts, Miss Franklin, and Great Western.

Collections of six Pelargoniums were shown by Messrs. Turner, Wiggins, and Cross. Mr. Turner, who was first, had Spotted Gem, Picturatum, and El Dorado, spotted varieties; and Phoebe, Clarissa, Vestal, light kinds.

Auriculas were present in great force, many amateurs of distinction sending groups. Mr. Turner also had a choice collection that fully sustained the Slough reputation for Auricula growth.

Boxes of twenty-four blooms of Pansies came from Mr. James, of Isleworth, and Mr. Bragg, of Slough, the former being placed first.

Then there were groups of six miscellaneous plants, Messrs. J. & C. Lee, of Hammersmith, being first; Messrs. A. Henderson & Co., and Mr. B. S. Williams, being second; and Mr. Smith, of Syon House, third.

One feature in this Show was the exhibition of ornamental vases for in-doors, filled with flowering plants. Of these pretty and tasteful designs were furnished by Mr. W. Bull, of Chelsea, who was placed first; and Messrs. A. Henderson & Co., Edgware Road, second. Some contained Caladiums, Ferns, Gloxinias, and other stove plants under bell-glasses; while the occupants of the other vases were hardier plants without covering. One of these had in the centre a flowering plant of the pretty drooping white *Cytisus filipes*, edged with the grassy bright green *Isolepis gracilis*.

In the Miscellaneous Class, Mr. Turner had some fine Azaleas, and Messrs. H. Lane and Son the same. Mr. James, of Isleworth, had a group of his fine strain of dwarf herbaceous Calceolarias, and Pansies in pots; Mr. Turner, a group of sixty Auriculas; Messrs. Bull and B. S. Williams, new and rare plants; Mr. W. Paul, Roses in pots; and Mr. Treen, of Rugby, cut Verbenas of fine quality, amongst which were Firefly, Foxhunter, and La Gloire, three very bright flowers, the latter having a conspicuous lemon eye; Nemesis, a glowing orange scarlet; and Cato, a pretty striped variety. First-class Certificates were awarded to Mr. C. Turner for flowering plants of *Bougainvillea speciosa* in pots; to Mr. W. Bragg, of Slough, for Fancy Pansy *Vesuvius*, clear yellow with fiery bronze border, and narrow edging of yellow, but related to the English flower by having only a small dark eye instead of those dense blotches that generally distinguish the Fancy flowers; it was a large, well-formed, and showy variety. The same award to Mr. Holland, of Hounslow, for Auricula Rev. George Jeans; and to Mr. Bull for the curiously-marked *Pogonia discolor*, having only one leaf issuing from the soil into which it is planted. Second-class Certificates were awarded to Mr. Bull for *Serissa foetida marginata*; to Mr. B. S. Williams for *Pteridophyllum filicifolium*; to Mr. G. Baker, of Bagshot, for Azalea Fascination; to Messrs. Dobson & Son for Cinerarias Snowflake, a white self with dark disk; and Princess Dagmar, a narrow rosy-purple-edged variety; to Mr. C. Turner for a basketful of Strawberry President, a very early-forcing variety very like Sir C. Napier; and to Messrs. F. & A. Smith for a bright rosy purple Azalea named Lord Palmerston, a flower of good form. Messrs. Perkins and Son, of Coventry, had examples of their new scarlet *Verbena* Lord Leigh, a very bright flower, and said to be well adapted both for pot-culture and for bedding purposes.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, *May 13th*.—This was the first of the three great Summer Exhibitions annually held here; and as they are the best shows to which the residents of the metropolis are periodically summoned, it was only fitting that the Royal Botanic Society should lead the van in the yearly procession of the same. I can hardly describe my own feelings when I first passed under the canvas that leads me into the interior

of one of these magnificent shows. I felt something akin to reverence and awe when I stepped into the tent on Wednesday, the 13th ult. There was a delightful freshness and vigour about everything; and though subjects were here again that I had gazed on before, yet they were in new attire, and admiration went out after what leaped up responsive to its joyous welcome; and then, to add to the enjoyment, the rain, long withheld and ardently sought for, had fallen in copious and refreshing showers the day previous. Vegetation had drunk in its invigorating properties, and, in its spring vestments, moved by the gentle morning breezes, nodded its welcome to the fair children of Flora.

"I felt a thrill of awe and love
To mark the different garb of each.
The brightest tint, the soberest hue
Together bled —"

It was a fitting audience to which there was that morning introduced "the adopted daughter of England," round whom clusters the regard of English hearts, blended with their most devout wishes for her lasting happiness.

But to the details of the Exhibition. The greatest interest seemed to centre round the groups of eight greenhouse Azaleas, furnished by Messrs. Veitch & Son, and C. Turner. Up to the time of clearing the tent groups of censors were congregated before these, canvassing their rival claims to first position. Men whose opinion demanded the greatest respect were in favour of the Chelsea plants; they in their turn were succeeded by another batch, who contended for the pre-eminence of the Slough contributor. In the first was seen by their admirers an admirable symmetry of form; in the other was seen a height and distinctness of colour that excited something like a fascination in the spectator. And after the awards had been made, and the company were admitted to the tent, still the debate went on, and ayes and noes seemed to be as hopelessly divided as they were previous to the judgment. I shall look forward to the Crystal Palace Show with great interest, hoping to see these two groups in competition once more. Messrs. Veitch's plants were Juliana, Iveryana, Extrani, Magnificent, Fentoni, Exquisita, Rosea Superba, and Barclayana. Mr. Turner had Stanleyana arborea superba, Admiration, Criterion, Optima, Gem, Lateritia alba Supreme, and Empress Eugénie. Third, Messrs. J. & J. Fraser, Lea Bridge Road, a group of fine plants. A contribution from Mr. Turner also occupied one of the most commanding positions in the tent. They stood apart in real regal supremacy, as if they were giving audience to the congregation of plants gathered before and about them. Azaleas from amateurs were small, and in comparison with the splendid plants in the Nurserymen's class, scarcely got any share of attention. Mr. J. Green, gardener to Sir E. Antrobus, Lower Cheam, was first with eight varieties; Mr. T. Page, gardener to W. Leaf, Esq., Streatham, second; and Mr. Cross, gardener to Sir F. H. Goldsmid, M.P., Regent's Park, third.

A few groups of Cinerarias were staged, but there was wanting in them that *quality* that is found in the Slough flowers, which unhappily were not produced on this occasion. Mr. H. Lamb, gardener to Capt. Cahill, Southall, was first with Reynolds Hole, Masterpiece, Duke of Cambridge, Colonel Bain, Perfection, and Miss Eyles. Second, C. J. Perry, Esq., Castle Bromwich, Birmingham, with Lord Elgin, Bellissima, Precentor, Goliath, Purple King, and Great Western.

Opposite to these in the centre of the tent were staged the Fancy Pelargoniums; and on the eastern side were the superb show Pelargoniums of Messrs. Turner, Bailey and Fraser. In the Nurserymen's Class for twelve varieties, Mr. Turner was first with Sunset, Lilacina, Fairest of the Fair (a splendid plant), Sir C. Campbell, Beadsman, Rose Celestial, Empress Eugénie, Desdemona, Virginia, Picnic (a showy spotted kind), Candidate, and Ariel. Second, Messrs. J. & J. Fraser, with Osiris, Beadsman, Peacock, Fairest of the Fair, Governor-General, Leviathan, Mr. Marnock, Desdemona, Sir C. Campbell, Rose Celestial, Pizarro, and Candidate. In the Amateurs' Class for ten varieties, Mr. T. Bailey, of Shardeloes, was first with ten splendid plants, having Lord Canning, Etna, Monarch, The Belle, Diadem, Rose Celestial, Mr. Marnock, Leviathan, Scarlet Floribunda, and Ariel. Second, Mr. Weir, gardener to Mr. Hodgson, Hampstead, with Guido, Sanspariel, Fairest of the Fair, Aurelia, Leviathan, The Belle, Rose Celestial, William Bull, Ariel, and Mazeppe. With six Fancy Pelargoniums, Mr. Turner was first, having pretty plants of Clematthe, Acme, Queen of the Valley, Roi des Fantaisies, Delicatum, and Arabella Goddard. A first prize was also given to Messrs. J. & J. Fraser, who had charming plants of Negro, Clara Novello, Queen of the Valley, Celestial, Carminatum, and Modestum. No other competitor appeared in this class. Some very nice plants were produced in the Amateurs' Class. The first prize was gained by Mr. Bailey, of Shardeloes, who had Rosabella, Cloth of Silver, Lady Craven, Lady of the Lake, Clara Novello, and Acme. Second, Mr. J. Weir, with plants of Emily Whicher, Lady H. Campbell, Delicatum, Madame Sontag, Carminatum, and Negro. Third, Mr. H. Lamb, gardener to Capt. Cahill, who, in addition to Cinerarias, is also growing Geraniums in a most creditable manner; and fourth, Mr. Peplar, gardener to Earl Granville,

Hendon, likewise a new competitor in this class. Mr. Bailey's plants in both classes were splendid specimens of Geranium culture; and had they come into competition with Mr. Turner's plants, would, I think, have gained the supremacy.

And now to the Roses, and glorious specimens they were too. Messrs. H. Lane & Son, of Berkhamstead, had it their own way with ten splendid plants clothed in flower of fine quality. The varieties were *Hybrid Perpetuals*, Jules Margottin, Baronne Prevost, and Léon des Combats; *Hybrid Bourbons*, Coupe d'Hébé, Paul Perras, Charles Lawson, Chénédole and Countess Mole; *Tea-scented*, Souvenir d'un Ami, and Gloire de Dijon. Second, Mr. William Paul, Waltham Cross, with *H.P.'s*, Triomphe de Paris, Comte de Nanteuil, and Sénateur Vaisse; *H.B.'s*, Paul Ricaut and Paul Perras; *H.C.'s*, Charles Lawson and Coupe d'Hébé; *Tea*, Souvenir d'un Ami, Madame de St. Joseph, and another. Third, Mr. E. P. Francis, Hertford. With six varieties, shown by Amateurs, Mr. Terry, gardener to C. Puller, Esq., Youngsbury, was first. *Tea-scented*, Viscountesse de Cazes, Comte de Paris, and Souvenir d'un Ami; *H.P.*, Jules Margottin; and *H.C.*, Paul Perras and P. Ricaut. Mr. Terry was the only exhibitor in this class.

Stove and Greenhouse Plants, Fine-foliaged Plants, Cape Heaths, and Orchids, were again in force, but not so gay as they will be at the first June Show, when they shall be noticed more in detail. There seemed to be an entire absence of novelty in either, judging from the varieties staged, excepting in the group of Messrs. J. Jackson & Son, of Kingston, in which was a well-bloomed plant of their new *Clerodendron Thomsonæ*, first produced at the Horticultural Society's Meeting in May, 1862.

Under the heads of New or Extremely Rare Plants, and Seedling Florists' Flowers, numerous entries were made. First-class Certificates were awarded to Messrs. Veitch & Son, for *Melastoma argyroneura*, having deep olive-green leaves, with midribs of clear silver marking; for the Golden *Cheilanthes Borsigiana*; for *Litobrochia nobilis*, a white-ribbed ornamental-foliaged plant; for *Dracophyllum* species, with compact pure white heads of flower, from King George's Sound; said to be a great improvement on *D. gracile*, and much better adapted for exhibition purposes; and for two very handsome *Rhododendrons*—*Picotee rosea* and *Princess Alice*, the first a clear carmine rose colour spotted with black, the other a sweet-scented white-flowering hybrid. The same award to Mr. Standish, of Bagshot, for two varieties of Japanese Clematis, the one named *C. Fortunii* having several rows of white sepals tinted with lilac; the other, *C. Florida Standishi*, a deep violet variety of great merit. To Mr. W. Bull, for *Athyrium Filix-femina sagittatum*; for *Pogonia discolor*; for *Areca dealbata*, a handsome Palm; for *Caladium* or *Alocasia Lowii*, and for *Yucca lineata lutea*, having deep green leaves with centre of clear yellow. To Mons. A. Verschaffelt, Ghent, for *Dieffenbachia Verschaffelti*, having deep green leaves marked with white blotches. To Mr. C. Turner, for seedling *Pelargonium Orion*, a finely-formed bright scarlet, very striking and showy; for *Pelargonium Prince of Wales*, a high-coloured spotted flower of fine form; and for Richard Headly Tulip, a feathered bizarre. To Mr. W. Paul, for two seedling Hybrid Perpetual Roses, Lord Herbert and Lord Macaulay, the first a rosy carmine, the latter a dark crimson; both flowers of good substance. To Messrs. A. Henderson & Co., for *Tropæolum Ball of Fire*; and to Mr. J. Holland, gardener to R. W. Peake, Esq., Isleworth, for *Petunia Royalty*, a very showy single variety, magenta with white rays. Second-class Certificates were awarded to Messrs. Veitch & Son for *Ligularia Kämpferi argentea*, a variegated Coltsfoot from Japan, having cream spots on deep green leaves; for *Browallia Jamesoni*, *var. multiflora*, thickly studded with bronzy-shaded deep orange flowers; and for *Aglaonema commutatum* from the Philippine Islands, a dwarf plant with grey spots. To Mons. J. Verschaffelt, for a *Rhododendron* bearing his name, a bright rose with dark crimson spots; to Mr. B. S. Williams, for *Aralia punctiloba*; to Mr. Turner, for his white *Azalea Louise Von Baden*; to Mr. Bull, for *Justicia variegata*, having green leaves marked by reddish ribs and dark brown patches, and for *Anætochilus argyræa*; and to Mr. W. H. Treven, of Rugby, for a seedling *Verbena Rugby*, noticed before as a rosy salmon with deep carmine centre, a large and showy flower.

In addition to these, Messrs. Veitch & Son had a pan of their scarlet-flowering *Ourisia*; Mr. Turner had *Pelargoniums Alexandra*, a glowing carmine with dark blotches, partaking of the characteristics of the French kinds; and *The Prince* in the same way, but having a larger blotch on the top petals. Also the following Fancy kinds:—*Princess of Wales*, a close-growing free-flowering variety, colour white, spotted, and streaked with rose; and *Godfrey Turner*, a rosy crimson edged with white. Some seedling show *Pelargoniums*, shown by Mr. Wiggins, gardener to W. Beck, Esq., of Isleworth, last season, were again produced. The most striking were *Eurydice*, a light variety with carmine and crimson top petals; and *Canopus*, having pink lower petals, and glowing rose top petals, with small crimson blotch. Mr. George Smith, of Islington, had a dwarf yellow bedding *Calceolaria* named *Jason*, and a large double *Fuchsia* named *Grand Duke*. Mr. Bull also had a pan of his pretty *Mimulus maculosa*, very novel in its marking, and useful for greenhouse decoration. Messrs. Downie, Laird, & Laing, of Edinburgh and Forrest Hill, were first with thirty-six Pansies; and

Mr. Henry Hooper, of Bath, second. With stands of twenty-four varieties, Mr. Fraser, of Belmont, was first; and Mr. J. James, of Isleworth, second. Certificates were awarded to Mr. W. Dean, Bradford Nursery, Shipley, Yorkshire; and to Messrs. Downie, Laird, and Laing, for stands of cut blooms of Fancy Pansies, among them being many blooms of great excellence of seedlings. Mr. Dean had Princess of Wales and Her Majesty, two light flowers; Prince of Wales and Princess Mary of Cambridge, two flowers of shaded crimson hues; and Creole, Admiration, and Princess Alice—all very distinct and promising. Messrs. Downie and Co. had the following seedling flowers:—Sulphur Queen, Gipsy Queen, Punch, Golden Lion, H. O. Nethercote, Asteroid, and Earl of Rosslyn, flowers of a promising character, and which, no doubt, will be produced again. Certificates were also awarded to Mr. Turner for a quantity of Auriculas, and to Mr. Treen, of Rugby, for cut Verbenas. A fruiting branch of *Napoleana imperialis* was produced from the gardens at Syon House by Mr. Smith, said to be a great rarity.

Quo.

AWARDS OF THE ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

February 25th, 1863.

ANECTOCHILUS ARGYREUS.—Mr. Bull [S.C.C.].—A distinct species, with long narrow leaves, green, marked by two longitudinal silvery lines and sometimes with the space between them greyish, which is probably its fully developed condition. It is from Brazil.

AZALEA PRESIDENT CLAEYS.—Messrs. Veitch & Son, Exeter and Chelsea [F.C.C.].—A very handsome variety with salmon-red flowers edged with white; the margin broad and well-defined, and the upper segment marked with rich rose crimson spotting. The blossoms are of good form and substance. A very useful variety for ornamental purposes.

BARKERIA SKINNERI SUPERBA.—Messrs. Veitch & Son [F.C.C.].—A large-flowered bright-coloured form of a well-known and very handsome Orchid.

CYPRIPEDIUM DAYANUM.—John Day, Esq., Tottenham [F.C.C.].—A handsome Bornean species of Lady's Slipper, with large flowers and very finely-tessellated foliage. The acuminate dorsal sepal is covered with green stripes, the lip is brown, and the petals are dark brown at the base, and white stained with purple towards the tips. It was rewarded for its distinctness and general ornamental qualities, but especially for the handsome variegation of its leaves.

HIBISCUS (? sp.) *VARIIGATUS*.—Messrs. Veitch & Son [Com.].—A neatly variegated warm greenhouse shrub from New Caledonia, having the leaves freely blotched with grey and tinted with pink, producing a singular and well-marked variegation. It looks as if it might be a variegated form of *H. rosa sinensis*, checked in vigour by the variegation, but has not yet flowered.

HOLLIES.—Mr. William Paul, Waltham Cross [Spec. Cer.].—This was a collection of forty green and thirty-two variegated varieties of Holly, and was sent in illustration of a paper read on this occasion before the Committee.

LIMATODES ROSEA ALBA.—Messrs. Low & Co., Clapton [S.C.C.].—The species itself, with its clear rose-coloured flowers, is one of the gayest of winter-flowering Orchids. The present is a pure white variety, and therefore valuable for contrast. It has been obtained from Moulmein.

LYCASTE SKINNERI.—Messrs. Veitch & Son [Spec. C.].—A collection of twelve varieties of this very variable but most valuable winter-flowering greenhouse Orchid.

TRICHOMANES ANCEPS.—Mr. Bull [F.C.C.].—A charming West Indian species of the group of Filmy Ferns, remarkable for its large broad-surfaced fronds which are shining with a metallic lustre; pinnate, with the pinnae twice or thrice pinnatifid, the sori singularly deflected. It is a plant of very great beauty.

YUCCA LINEATA LUTEA.—Mr. Bull, Chelsea [F.C.C.].—A fine and distinct-looking striped Yucca, related to quadricolor and Stokesii. The leaves have a glossy surface, and are somewhat elbowed near the middle; they have a clear yellow broad stripe down the centre, sometimes breaking out into lines, and margined with dark green. Obtained from Mexico through Mr. Roezl.

March 18th, 1863.

ALOCASIA PICTA.—Messrs. Veitch & Son.—From Brazil; a moderate-sized stove herb with slender leafstalks and deflexed ovate leaves which are green, with white longitudinal nerves slightly tinged with pink towards the base.

AUCUBA JAPONICA.—Mr. Standish [Spec. C.].—This was a very interesting item of the Exhibition. There was first the true *A. japonica* in its normal green-leaved state, recently obtained from Japan by Mr. Fortune; this was a dense bush and had every branch terminated by a bunch of female flowers, the species being dioecious, and this plant a female. There was also a small plant, also recently imported, of a variegated variety like that commonly

cultivated, but bearing male flowers, the plant being a male, and the first which has been exhibited in blossom in England. It is hoped now that the two forms are introduced to our gardens we may get bushes of this most useful shrub laden with its conspicuous orange-red berries.

AZALEA FLAG OF TRUCE.—Messrs. Smith [Spec. C.].—This was a group of young plants showing that the variety, a double pure white, rather improves under cultivation. It is a very fine thing.

CAMELLIA JUBILÆ ROSEA.—Messrs. Lee.—An imbricated flower, rather flat but showy, of a rosy pink colour; a sport from the variety called Jubilæ.

CAMELLIA NAPOLEON III.—Messrs. Lee [Com.].—A pleasing double-cupped variety with veined pink flowers, paler at the edges; as shown, the blossoms were scarcely of average size.

CINERARIA JOHN SPENCER.—Mr. Turner [Com.].—A deep crimson self, the “pips” large and very showy, and the disk of nearly the same colour as the ray. It was rewarded as a very telling decorative variety, but was deficient in some of the technical merits sought for by florists.

HEBECLINIUM MACROPHYLLUM.—Messrs. A. Henderson & Co.—A Mexican plant, remarkable for its gigantic cordate green leaves, and its large corymbs of reddish-lilac Ageratum-like flower-heads. It is said to be much used in the warmer parts of the continent as an out-door summer-foliaged plant; but it remains to be seen whether it is adapted for a similar purpose in our climate. Also *Hebeclinium atrorubens*, a plant resembling *H. ianthinum*, but having dark red stems and branches, and reddish-lilac flower-heads.

NEPHELOPHYLLUM CORDATUM.—Mr. Bull.—A dwarf East Indian Orchid, with the leaves more cordate, as well as paler, than those of *N. pulchrum*.

PANDANUS ELEGANTISSIMUS.—Messrs. Veitch & Son, Exeter and Chelsea; Mr. Bull, Chelsea [F.C.C.].—A small-growing and very elegant-habited species of Screw Pine, the gracefully arching leaves of which were narrow, deep green, with a row of red spiny teeth on the keel and on either margin.

PRIMULA SINENSIS FLORE PLENO.—Messrs. F. & A. Smith, Dulwich [Spec. C.].—Under the names of *delicata* and *rubra grandiflora*, Messrs. Smith last year exhibited two remarkably fine double Chinese Primroses, which were said to have the property of increasing themselves from seeds. A group of seedlings from these plants were now shown all perfectly double, and showing the two colours of the originals.

RHODODENDRON ROMAIN DE SMET.—Messrs. Veitch & Son; Messrs. Lee, Hammersmith [Com.].—A Belgian hybrid, shown by Mr. Veitch as a good forcing variety. The flowers were blush, spotted thickly on each of the segments with black. It was considered to be an improvement on the varieties of this character, of which several are known.

SKIMMIA JAPONICA VERA.—Mr. Standish, Bagshot [F.C.C.].—This was exhibited as the true *Skimmia japonica*, and is distinct from the plant generally known and cultivated under this name. It differs most notably in being of larger size and freer habit, and is to be regarded as a fine evergreen shrub well clothed with smooth-surfaced elliptic-lanceolate leaves of a full green colour. The small greenish fragrant flowers form thyrsoid panicles at the ends of the branches considerably larger than in the kind first introduced. Should these be succeeded, as in the dwarfer plant, by a crop of bright red berries, this shrub will be a great acquisition for our shrubberies; but no information was afforded as to its berry-bearing qualities. The plant was introduced from Japan by Mr. Fortune.

TRICHOMANES SPICATUM.—Mr. Bull [F.C.C.].—A curious little West Indian Fern referred by some pteridologists to the genus *Féea* on account of the dimorphous character of its fronds. The sterile fronds are spreading in a tuft from the crown, and pinnatifidly divided, in size, form, and position much resembling those of a medium-sized plant of *Blechnum spicant*, but differing entirely in their transparent texture. In the centre rise the fertile fronds, which are reduced to a two-ranked spike of soriferous cysts, from which the receptacle projects. It is a very pretty dwarf plant, of much interest from these peculiarities of structure.

March 31st, 1863.

AMARYLLIS BRILLIANT.—Messrs. E. G. Henderson & Son [S.C.C.].—One of the *Hippeastrum* series, a handsome variety with well-formed and well-expanded flowers of a deep rich crimson, and having a slightly-marked white stripe down each of the segments.

AMARYLLIS FIRE KING.—Mr. W. Bull, Chelsea [Com.].—A showy variety, with the flowers of a very bright scarlet marked with a white star, but rather small in size.

ANTHURIUM SCHERZERIANUM.—Messrs. Veitch & Son [F.C.C.].—This had already received one of the minor prizes at the summer shows of last year, but was now shown in a finer condition, meriting one of the highest awards at the disposal of the Committee. The lance-acuminate, deep green, fleshy-looking stalked leaves form a beautiful surrounding to the bright scarlet inflorescence, which is elevated on a slender scape, and consists of an ovate, reflexed, deep scarlet spathe, and a vermiform paler scarlet spadix.

BLETIA SP. JAPAN.—Mr. Standish.—A pretty plant, with plaited grassy leaves and rosy violet flowers, having an undulated lip with five frilled crests on its surface. It was thought a promising plant as a greenhouse Orchid, and was invited to be shown again when it blooms more abundantly.

CAMELLIA FILIPPO PARLATORE.—Messrs. Veitch & Son, Chelsea [F.C.C.].—This was a very handsome variety, quite first-class in character. The habit was vigorous, the foliage bold, and the flowers remarkably smooth and symmetrical, of the cupped-petalled class. The colour was a blush white; freely striped with rosy carmine, the petals remarkably smooth and even at the margin.

CAMELLIA GIARDINO SANTARELLA.—Messrs. Veitch & Son.—A neat and pretty sort; red, freely blotched with white. The flowers are sometimes entirely white-margined. The bloom shown was not now sufficiently advanced.

DENDROBIUM LITUIFLORUM.—Messrs. Veitch & Son [F.C.C.].—A rare and handsome Orchid, with drooping stems abundantly clothed with blossoms. The sepals and petals are violet-rose; the lip white, tipped with rosy violet, and having a very rich-looking eye, of a deeper tone, of the same colour.

PETARGONIUM (FORCING) MRS. LEWIS LOYD.—Messrs. Jackson & Son, Kingston [Com.].—A free-blooming showy variety of good habit; the flowers deep rosy crimson, with dark veiny spots on the upper petals, and a bluish centre. It was regarded as a useful forcing sort, but not so good as one called *Pline*.

PHEDRANASSA OBTUSA.—J. Anderson-Henry, Esq., Edinburgh.—The curious green and red-flowered Amaryllid, with an umbellate inflorescence of drooping flowers.

PRIMULA SINENSIS FILICIFOLIA.—Messrs. E. G. Henderson & Son, St. John's Wood [S.C.C.].—This distinct and handsome variety of Chinese Primrose had already received commendation. (See *Proc. R.H.S.*, i. 477.) It was now shown in a more vigorous and highly developed condition, and proved to be a decided acquisition amongst subjects adapted for conservatory decoration. The two forms—*ALBA*, with blush white, and *RUBRA*, with rosy-coloured flowers—were both shown, and a certificate was awarded to each.

WALLFLOWER YELLOW PERFECTION.—F. J. Graham, Esq., Cranford [Com.].—A large-flowered, single, bright clear yellow Wallflower, remarkably sweet-scented. It had been obtained by Mr. Graham by careful seeding and selection through several generations. It will be useful as a bright-coloured spring flower.

April 15th, 1863.

ALOCASIA ZEBRINA.—Messrs. Veitch & Son, Exeter and Chelsea [F.C.C.].—This plant was introduced from the Philippine Islands, and had already received a medal at the summer shows. Its leaves are green, on stout erect stalks, which are singularly marked with zigzag bands of deep green.

ANTHURIUM SP.—Mr. Bull [Com.].—A South-American species of bold and striking character. The mature leaves were deflexed from the top of the erect, polished, slender stalks; the blades of moderate size, deep green, rather veiny, cordate, and of a thick leathery consistence. It was not in blossom.

AURICULA ENSIGN.—Mr. Turner [S.C.C.].—A pleasing grey-edged sort with a purple band surrounding the paste.

AURICULA (*alpine*) SUPREME.—Mr. Turner [Com.].—A handsome shaded maroon crimson, with bright golden ring around the eye.

AZALEA BEAUTY OF DORKING.—Messrs. Ivory & Son, Dorking [S.C.C.].—A dull white with greenish stain on the upper part of the tube; in all respects excellent, being of a handsome trumpet-shape, and remarkably smooth form and even. The white ground was marked with numerous bars and flecks of carmine. It will prove a first-rate sort if the green stain passes off.

AZALEA LOUISE VON BADEN.—Mr. Turner, Slough [F.C.C.].—A remarkably fine Indian Azalea, the striking feature of which was the extreme purity of its white blossoms, which had great substance, and a clean smooth surface and margin. It is quite an acquisition.

AZALEA MADAME VERSCHAFFELT.—Messrs. Veitch [S.C.C.].—A very handsome decorative sort of Belgian origin. The flowers are of a veiny pink, paler and frilled at the edge, and conspicuously marked with a large deep red blotch on the upper segments.

BOUGAINVILLEA SPECIOSA.—Mr. Turner; Mr. Bull [Spec. C.].—Small plants of this very beautiful stove plant were shown blooming freely. It was understood that the merit of blooming the plant, in considerable quantity, and in small pots, was due to Mr. Turner, who had obtained his stock from Mr. Keene's plant at Swyncombe. These plants had been blooming in an intermediate-house since Christmas as freely as a *Cineraria*, a result attributed to their having been thoroughly ripened last year.

CERASUS SP.—Mr. Standish [Com.].—A double-flowered Japanese Cherry. The blossoms were large, semidouble, of a purplish-stained white.

CHEILANTHES BORSIGIANA.—Messrs. Veitch & Son [F.C.C.].—A small-growing South-American Fern, with triangular fronds, clothed on the lower surface with golden powder.

the counterpart of the Siberian *C. argentea*, and closely resembles the small states of the Indian *C. chrysophylla*.

CINERARIA SNOWFLAKE.—Mr. Page, gardener to J. M. Strachan, Esq., Teddington [S.C.C.].—A pretty ornamental variety with white florets and blue disk, rewarded only as a decorative plant.

GREENOVIA AUREA.—Mr. Bull, Chelsea [F.C.C.].—One of the *Sempervivum* tribe from the Canary Islands. It forms a rosulate tuft of retuse glaucous leaves, and its flowering-stems are terminated by somewhat corymbose heads of golden yellow flowers. It was thought that the many fine neglected plants of this character known to exist, and many of them grown here and there in private collections, were fully deserving of the attention which the award of a certificate would be likely to draw towards them.

KERRIA JAPONICA VARIEGATA.—Mr. Standish, Bagshot [Com.].—The variegated form of the well-known *Kerria* with single yellow flowers.

MAGNOLIA LINNÉ.—Mr. W. Paul, Waltham Cross [F.C.C.].—The finest of all the purple-flowered *Magnolias*, and a most desirable hardy shrub. It was related to *M. conspicua*; but the flowers, though only in the bud state, were very large, with the margins and tips of the petals incurved so as to give the flowers a bluntly obovate outline. It is a French variety.

PANSY EXQUISITE.—Mr. Turner [Com.].—A white-ground flower of pleasing colour, the bordering being of a bluish-violet, the top petals deeper violet, and the eye distinctly marked.

PANSY (Fancy) EARL OF ROSSLYN.—Messrs. Downie, Laird, & Laing.—A shaded mulberry crimson, very promising as to colour, but only a solitary blossom.

PANSY (Fancy) FEU DE JOI.—Mr. Turner [Com.].—A large and well-made flower with a creamy ground colour, a good deal covered by a shaded mulberry border; the blotch below the eye very dark, almost black.

RETINOSPORA LEPTOCALADA.—Messrs. E. G. Henderson & Son, St. John's Wood [F.C.C.].—A handsome compact-growing hardy pyramidal Conifer, of which small plants were now shown, larger ones having been previously brought before the Committee as an unnamed coniferous shrub. (See *Proc.*, i. 480.)

ROSE LORD HERBERT.—Mr. W. Paul.—A Hybrid Perpetual with rosy carmine flowers, the petals reflexing at the summits in the way of *Beauty of Waltham*; large, full, finely formed, and altogether of first-rate excellence. The plant bore but one flower, which was, however, considered highly promising; but as this was scarcely the Rose season the award was deferred.

ROSE MILLS'S PET.—Mr. G. Mills, Ealing.—A seedling Chinese of free-blooming habit, and a useful marked plant. The flowers are of a rosy blush, deeper in the buds.

TROPÆOLUM BALL OF FIRE.—Messrs. A. Henderson & Co.—A very free-blooming bright scarlet bedding sort, but rather overblown. It was requested that it might be sent again along with *Eclipse*.

VALDIVIA GAYANA.—Messrs. Veitch & Son [Com.].—A pleasing and very distinct evergreen herbaceous perennial from Chili. It had spatulate, oblong, acute, rugose leaves, sharply serrated at the edge; and a short, erect, pyramidal panicle of pretty tubular rose-coloured flowers, the tube of which was angular, and the five limb segments recurved. Had it been ascertained to be hardy, it would have obtained a first-class award. It may probably still prove a very useful spring decorative plant adapted for pot-culture. Mr. Pearce describes it in the wild state as a beautiful and singular plant; the flowers of a brilliant rose, each three-quarters of an inch long. On one stem he counted one hundred and twelve blossoms. The leaves measure nearly a foot long by 4 inches broad, and are of a bright glossy green; it likes shade and moisture. It was stated that at Exeter plants had stood out for the last two winters.

OBITUARY.

DEATH OF MR. VEITCH, OF EXETER.

WE regret to have to announce the death of Mr. James Veitch, of the Exeter Nursery, which took place suddenly on the 14th of last month, in the 70th year of his age. Mr. Veitch had just sustained the loss of his wife, and on the morning of the funeral, and when in the enjoyment of his usual health, he went into the garden to gather some flowers of *Lily of the Valley* to strew on his wife's coffin; but the sad event was too much for him, and overwhelmed with grief at the loss he sustained, he was seized with spasms of the heart, and expired in the arms of his son, Mr. James Veitch, of Chelsea, after two hours' illness.

Mr. Veitch has closed a long career of usefulness and integrity. The high position he occupied in his business calling is well known to all who know anything of botany and horticulture.

CALENDAR OF OPERATIONS.

CONSERVATORY.

CAMELLIAS and other large plants growing in pots or tubs, that have completed their growth, may now be removed to a shaded situation out of doors. Pay attention to late-growing plants in borders, while in active growth they require a good deal of water. Be careful not to crowd the plants too much, as the permanent plants in borders will now need that the wood may get properly matured. Syringe freely all plants not in flower, and attend well to the watering. Shade in bright weather, and ventilate freely night and day.

GREENHOUSES.

HARDWOODED PLANTS.—All plants intended to stand out of doors during the summer should now be removed to a sheltered situation where they will be shaded from the midday sun. All tender delicate plants should be kept in-doors, also all young plants intended to be grown to fine specimens. Shift all plants that require it. Stop and tie-out shoots. Syringe freely, and attend well to the watering. Give abundance of air night and day, and shade in bright weather.

SOFTWOODED PLANTS.—*Delarganiums*.—As soon as the early-flowering plants have done blooming, they should be set out of doors for two or three weeks, to ripen their wood before they are cut down. Attend to the tying-out of the late-blooming plants, and give them liberal supplies of weak liquid manure. Guard the opening with gauze or net, to keep the bees out. Ventilate freely. *Cinerarias*.—Plants that have done blooming should now be planted out in some nice soil in a cool shady situation, where they may remain for two months, to be then parted and potted for next season's blooming. Seedling plants should now be kept freely growing, and should be shifted when necessary. Keep them well watered, and give them plenty of air. *Calceolarias*.—These will now be coming into flower, and should be well attended to. See that they are clear of insects. Keep the stems neatly tied up, and attend carefully to the watering. *Fuchsias*.—These will now require liberal supplies of weak liquid manure.

STOVE.

More air than was formerly given will now be required. This will increase the evaporation, therefore more care must be taken to keep the air of the house sufficiently moist. Give plenty of weak liquid manure to all strong-growing plants. Shift any plants that may require it.

FLOWER GARDEN.

In consequence of the weather being so very favourable, the newly-planted-out stock will now be rooting freely. Take up spring-flowering bulbs as they get ripe, and thoroughly dry them before storing them away. Keep the surface of the beds well stirred up amongst the plants, and in dry weather water everything that needs it. Attend regularly to the training and pegging-down of the young growths as they advance. Fill baskets and vases. Plant Dahlias, and secure the plants to stakes. Stake and tie-up Hollyhocks. Sow Brompton Stocks for spring-flowering on some light soil. Sow Hollyhock seed. Plant out Asters, Stocks, &c. Prick-out seedlings of all kinds. Roses require great attention now. Keep them clear of insects, and thin and regulate the shoots. *Pleasure Grounds*.—Attend well to the watering of all newly-planted trees. Give them a good soaking when they require it. Attend regularly to the rolling and mowing of the grass. See the walks are free from weeds, and keep them well rolled.

FORCING.

FRUIT.—*Pine Apples*.—Maintain a steady bottom heat of about 86°. Give all plants swelling off fruit liberal supplies of liquid manure. Give abundance of air. Keep the day temperature at about from 76° to 85°, with a rise of 10° by sun heat. Shift at once, if not already done, all plants intended for autumn and winter fruiting. Give them a good bottom heat, plenty of air, and all the light possible. By these means you will get strong stiff plants, which will be almost certain, under favourable circumstances, to bear fine fruit. Shift succession plants any time they

may require it. *Vines*.—Keep all ripe Grapes cool and dry, otherwise they will soon shrivel. In houses where Grapes are approaching maturity the night temperature should not be less than 65°, and during the day temperature should be about 80°, with a rise of 10° by sun heat. In hot weather the later houses will not require much fire heat, but in dull wet weather it will be necessary. Give air early in the mornings and close up early in the afternoons, and well wet the floors and paths with water in all houses where the Grapes are swelling. *Peaches and Nectarines*.—When the fruit from the early house is all gathered, attend to the ripening of the wood. This will be best done by keeping the foliage in a green healthy state as long as possible. Give abundance of air at all times, and use the syringe freely. Keep a drier atmosphere where fruit is ripening, and give plenty of air. In late houses where fruit is swelling keep as moist an atmosphere as you can. Go over the trees, and remove any shoots not required for next year. *Figs*.—After the first crop of fruit is gathered, pay every necessary attention to the second crop. Give the borders a good watering, and to plants in tubs or pots give plenty of liquid manure. Syringe freely to keep down red spider, and maintain a moist atmosphere. *Cherries*.—When the trees are removed out of doors, they must be well attended to. In dry weather they should be well syringed every afternoon, and should also be well watered. *Strawberries*.—Keep the plants well syringed until the fruit begins to ripen. Towards the end of the month, if runners can be obtained, they should be layered in small pots for early forcing next year. *Melons*.—Maintain a good steady bottom heat. Give them a good watering when they require any. Keep the shoots from getting crowded. Give air freely in fine weather. *Cucumbers*.—Pay every attention to the heat, air, and moisture. Red spider is often troublesome at this season, especially in plants that have been some time in bearing. Spare no pains to keep it down. Thin and regulate the shoots. Do not let the leaves get too crowded, and avoid overcropping.

HARDY FRUIT.

Wall fruit trees will now require to be carefully attended to. Lose no time in thinning the fruit, as the sooner this is done the better it will be for the crop. Keep the trees thin of wood. Train and nail in the shoots as they require it. Look sharply after insects. Two or three good syringings with tobacco water will soon clear the trees of green fly. Caterpillars are sometimes very troublesome on Pears and Apricots, as they curl up the leaves and injure the young fruit. They should be carefully looked after when they appear, and picked off and destroyed. Give the trees a good syringing every afternoon. Water well in dry weather newly-planted trees.

KITCHEN GARDEN.

The young crops will now require great attention in thinning, filling up vacancies, weeding, hoeing, and watering in dry weather. In showery weather slugs are very destructive to seedlings. Look out for them early in the mornings and late in the evenings. *Cauliflowers*.—Plant for successional crops in well-enriched land. Manure and dig deeply ground for planting out large breadths of Broccoli of sorts, Brussels Sprouts, Savoy, Borecole, &c. *Celery*.—Get out the first crop at once in well-manured trenches, and water well in dry weather. Prick out and encourage young plants for late crops. Plant Lettuces. *Peas, Beans, and French Beans*.—Sow for successional crops. *Spinach*.—Sow. *Lettuces*.—Sow. *Endive*.—Sow for early crop. *Turnips*.—Sow the main crop for winter towards the end of the month. Onions, Carrots, Beet, Parsnips, Salsify, Scorzonera, and the like should all be well thinned, and the hoe should be kept constantly plied between the rows. *Potatoes*.—Hoe and earth-up late crops. *Marrow and Basil*.—Plant out early in warm sheltered borders. *Asparagus*.—Cease cutting after the middle of the month, and in showery weather dress the beds with salt. Never let weeds get ahead. Keep the hoe constantly going. Maintain the greatest cleanliness and order.—M. S.



Carlotta Papudoff Camellia .

CAMELLIA CARLOTTA PAPUDOFF.

WITH AN ILLUSTRATION.

WE have acquired within the last few years, chiefly from continental sources, some very welcome additions to the varieties of Camellia already known in our gardens, but amongst them few of the character of that represented on the accompanying plate from a careful drawing by Mr. Chandler, for which we are indebted to Messrs. Veitch & Son, of the Royal Exotic Nursery, Chelsea. We are glad of the opportunity of figuring it, as it proves to be a very pleasing flower, with a good deal of the charm of novelty about it.

We learn from the Messrs. Veitch, with whom we saw the plant blooming in the course of the past spring, that it is of Italian origin, and was introduced by them from Florence in 1861, under the name of CARLOTTA PAPUDOFF. It has flowered at Chelsea during two consecutive seasons, and has proved to be a constant variety, a free bloomer, and a plant of excellent habit. The peculiar features of the flower will be seen at a glance from the accompanying figure, which is a very faithful transcript of the variety as we saw it last February; while as regards habit and the other qualities, such as vigour of growth and freedom of flowering—which are necessary features in a first-class variety of a permanent flower like the Camellia—we are able to say that CARLOTTA PAPUDOFF fulfils all the conditions that can be required. The blossoms are of the imbricating form seen in *eximia* and varieties of that class, about medium size, never apparently what would be called large, very evenly formed, and also marked with tolerable evenness after an irregular pattern by white blotches on a ground of carmine rose, of which two distinct shades appear in the flower. It is, we think, a variety that will give every satisfaction to the grower.

We shall hope to have an opportunity of submitting some other highly meritorious varieties of this noble flower to the notice of our subscribers at an early date.

FANCY PANSIES.

I VENTURE to send you a few notes on some of the seedling flowers that have been produced this season; and, also, what I have received privately from growers of the same. The public interest is beginning to cluster round this important addition to florists' flowers, and I am desirous of furthering this interest by intimating what is being done in the way of the improvement of the Fancy Pansy.

Up to last year the varieties of this flower might be said to be almost exclusively in the hands of Mr. W. Dean, of Shipley, Yorkshire; and Messrs. Downie, Laird, & Laing, of Edinburgh and Forest Hill. Especially might this be said of Mr. Dean; for to him is mainly due its present notoriety. Naturally enough, they got distributed much wider last season; and it was only reasonable to look for them at the recent exhibitions, from growers who have a name for the cultivation of the English kinds. At the Spring Show of the Horticultural Society, on April 18th, Messrs. Downie, Laird, & Laing, had some volumes of seedlings that had just opened, but they were very small and imperfect; two of these were named—viz., H. O. Nethercote, a crimson and purple self with dark blotch; and Earl of Rosslyn, a bright reddish-claret self, blotched in the same way. At this Show Mr. Turner, of Slough, had Feu de Joie, mulberry, with large dark blotch, which received a commendation from the Floral Committee.

At the last Spring Show of the Royal Botanic Society, Mr. Bragg, of Slough, produced a seedling, to which I had the honour of standing sponsor, naming it *Vesuvius*. It had a clear yellow ground with fiery bronze border, and narrow edging of yellow running round the flower, and a small dark eye, instead of the large dark blotch that generally appears in the Fancy kinds. It was a flower of fine form and very showy.

At the first Exhibition of the Royal Botanic Society, two large collections of named kinds were produced by Messrs. Dean, and Downie, Laird, & Laing, composed of the cream of the named flowers that are in cultivation. In neither case was the lacing of the flowers so clearly defined as if the weather had been genial and sunny. Some seedlings were also present. Mr. Dean had *Princess of Wales* and *Her Majesty*, two light flowers with dense dark blotches; *Prince of Wales* and *Princess Mary of Cambridge*, flowers of darker shades, the latter especially being of great promise. There were also *Creole*, a violet purple with large dark blotch in each segment; *Admiration*; and *Princess Louise*—all very distinct and promising. Messrs. Downie & Co. again produced *H. O. Nethercote* and *Earl of Rosslyn*; also *Sulphur Queen*, *Gipsy Queen*, *Punch*, *Golden Lion*, and *Asteroid*, flowers that I did not attempt to describe, as Mr. Laing said they would be in better form at the Crystal Palace.

At Sydenham, on the 23rd of May, Messrs. Downie & Co., had a collection of named kinds in fine form; and some seedlings, the most distinct and valuable of which were *Sulphur Queen*, pale yellow, with large blotch, but bottom petal being too small as shown; *Maccaroni*, a large purple self with dark blotch; *Black Prince*, a very dark flower with large crimson purple blotch, rayed with yellow on the upper petals; and *H. O. Nethercote*, still small, but having a distinct narrow edging of white round the flower. There were some others, but they were wanting in form, though curiously marked. These were again seen at the Regent's Park on June 3rd, together with Mrs. Nethercote, a very pretty and promising light flower. Mr. E. Shenton, of Hendon, also had a box of named seedlings; but, excepting *Lord Derby*, a large bluish-purple self, with small dark blotch, they were unworthy of notice.

On two recent occasions I have received from Mr. W. Dean, of Shipley, a selection of seedlings that bloomed for the first time in 1862. The first batch contained some thirty blooms, a few of which were named. I was astonished at the large size of the flowers and at the stoutness of the petals; and yet the sender informed me that "they are not yet in good trim, the weather is so cold, and we can get no rain. It is as cold here as in March." This was about the 29th of May. Under these adverse circumstances, added to the Pansies being planted out of doors on a very bleak position, one of the coldest in England, the lacing of the flowers was much more perfect than I could have expected to have seen it. Mr. Laing has admitted to me that they cannot produce such well-defined blooms at Edinburgh as at Forest Hill.

I am much struck with a flower named *Princess Mary of Cambridge*, large and well-formed, yellow ground colour, having a broad margin of maroon crimson with narrow edge of white, and a large black blotch rayed and dashed as with fire. Next were two blooms of *Prince of Wales*, yellow ground, with bright, bronzy, crimson border, having a distinct edging of yellow, and large dark blotch; *Princess of Wales*, a large light ground flower with margin of deep lilac, and a dark blotch rayed with bright purple; two blooms of *Princess Louise*, a splendid flower, dark velvety purple margin shaded with violet, and large dark blotch; *Her Majesty*, a very novel flower as sent to me, having a rich lilac border, with dark shading to the upper and side petals, the lower petals were of light ground colour, with narrow margin of primrose, and having a dense blotch edged with mauve. Next were three blooms of *Hibernia*,

having a ground colour of pale primrose, with a broad showy margin of bright Humboldt, or bluish-purple, and a small dark blotch. The last of the seedlings was Brigand, with margin of shaded purple to a pale lilac ground colour, and a large dark blotch margined with deep lilac. Besides these were blooms of Etoile du Nord and Princess Alice, the last one of the finest Fancy Pansies known; and of half a dozen English kinds, there were two blooms of Border Chief, a large yellow ground flower with deep bronzy purple margin; and Lizzie Walton, a splendid white ground flower, bordered with bright purple—both raised by Mr. Dean.

Batch No. 2 came to hand on June 5th, and contained seventeen fine blooms. There is a great variety in the marking of these flowers. You are not confined to the three classes of selfs, white grounds, and yellow grounds, that circumscribe the English flowers—in fact, there is such a great diversity of marking, and such eccentric blending of colours, that it sets at defiance almost all rules of classification.

I divided the batch into three divisions for the purpose of describing them. I put by themselves the bright and deep yellow grounds, those of a pale yellow, sulphur or straw colour; and, lastly, those of a white ground colour.

In the first was a flower of marked individuality, after the style of Noemy Demay and Mrs. Moore, deep golden ground with rich, fiery, bronze margin, and dense black blotch. This was fitly named Firefly, and was the showiest flower of the whole. Next was a curiously-marked bloom named Clown, bright gold ground with purplish-crimson border, having a dense blotch on each of the segments of the flower; Magicienne, bright yellow ground with broad margin of purplish-crimson, and dense blotch; then Lord Provost (a compliment I presume to the chief magistrate of Edinburgh), bright canary yellow ground, and purple belting rayed with pale lilac, and distinctly edged with white: this flower also had a smaller dark blotch than usual. Gold Shield had a ground colour of golden yellow, with rich bronzy margin to the upper petals, a narrow margin of the same to the lower segment of the flower, and small dark blotch; and, lastly, Richard Dean, yellow ground with bright purple margin, and having a large dark blotch.

The next division had pale yellow or straw grounds. Foremost was a splendid flower named Mrs. Dean, with broad border of velvety rosy crimson, and dense blotch rayed with fiery bronze; Thomas Moore, with deep Humboldt margin, spotted with white, and dark blotch; Beauté de Parterre, having violet belting, and dark bronzy blotch; Moonshine, pale lemon ground, lilac margin, and small dark blotch; Carlotta Patti, rosy purple belting with large dark spot on each segment, rayed with yellow and reddish-purple; and Aunt Nelly, having a rich rosy crimson border, and dark blotch, rayed with bright yellow.

In the remaining group of light ground flowers were four blooms of Hibernia—that like Thomas Moore has a variegation of white on its bright Humboldt belting; Columbine, with margin of violet and a dark blotch; Mrs. Turner, a large flower with pale lilac belting, and dark blotch; Princess Beatrice, having a broad border of rosy purple, and large purplish-crimson blotch; and, lastly, Annie Brooksbank, a flower something in the style of Princess Alice, but having a bright lilac margin, with large dark blotch on each segment.

There is one great advantage the Fancy Pansies possess over the English kinds—they are of hardier constitution, and seem to stand better the extremes of heat and cold. They also grow much stronger, and give a succession of bloom till very late in the season. The next two or three years will witness giant strides in this improvement, and a corresponding advance in popularity.

Quo.

A REMEDY FOR THE GRUB IN CARROTS.

It is generally most difficult for a gardener to obtain an abundant and healthy crop of Carrots. The gardens here are about ten acres in extent; and till lately every endeavour to obtain an abundant crop of this useful vegetable has failed, as it has been invariably cut off by the grub. We have, however, I am glad to say, been perfectly successful during last season, and have obtained a pure crop, clean and beautiful. In the autumn we trenched the ground two spades deep, and left it in a rough state. In the first week of April we levelled the ground with Dutch hoes, and drew drills 15 inches apart. Before sowing the seed we applied guano at the rate of about 4 cwt. to an acre. The seed came up well, but just as they were fit for thinning, they assumed as usual a yellow appearance, owing to the attacks of the grub. We then adopted an expedient which, I am glad to say, has proved highly successful. Having a large quantity of soapsuds beside us (as we constantly employ them for the wall trees), and having taken the rose from the watering-pot, we applied a considerable quantity to the rows. The result of this new experiment was very gratifying, as the crop assumed, shortly afterwards, a fine healthy appearance. The fact that we have employed guano for the last several years without producing the same effect, leads me to the conclusion that my success was chiefly owing to this very simple and easily-procured remedy. Should it in future years prove the successful remedy I have found it this year to be, I shall be most happy to acquaint your readers with it, as the remedy though exceedingly simple and easily procured will, I believe, prove highly beneficial.

Dunmore Gardens, Falkirk.

WILLIAM CARMICHAEL.

CEDRUS DEODARA.

THIS is certainly a most noble, ornamental, graceful-growing tree, one of the most noble, ornamental, graceful-growing trees which have been introduced to this country this last half-century. However, we do hear some accounts of plants here and there about the country failing in colour, becoming rusty, and losing their foliage at the points of their shoots. Possibly situation, soil, and the late two very severe trying winters may tend to have something to do with it. However, there is another enemy that has come under my own observation, and which I was exceedingly sorry to see. About this noble place there are a good many fine trees of *Cedrus deodara* growing about in various situations, the largest of which is nearly 60 feet high, with a trunk 2 feet, from ground 6 feet 9 inches in circumference, branching beautifully and gracefully to the green sward, in diameter from 36 to 40 feet. It has borne cones several times without male catkins—last year male catkins and not cones. Its trunk begins to look knotty and carbuncley, putting forth some carbuncles, similar to what I have when a boy knocked off the trunks of old Cedars of Lebanon, the size of a cricket ball to play cricket, hockey, and other then-amusing games with. There were also four large and beautifully-twining plants growing at each corner of a square piece of water here about twelve years ago. The foliage of one, after some hot sunny days, turned almost suddenly from a beautiful luxuriant green to pale yellow. On examination, the foliage was covered with a very fine minute mildew. Here the plant stood a yellow unhealthy-looking object till the following spring, unable to put forth new foliage. As the season and sun advanced off it fell, leaving a naked dead tree. This must be examined to discover the

cause of death. What could it be? I turned off the turf for a good distance about it, with fork and spade the earth was thrown out. Why, the roots were as white as a miller's jacket, eaten up with fungus. It had run up entirely through the heart or centre of the tree; it was as soft, dry, and drusey as an old dry-rotted beam or board out of a cellar, eaten up with dry rot. What is the cause of this? Was it because it stands high and dry several feet above the surface of the water? No, the soil contained a good many old roots and pieces of wood that had been intermined some years before by the shrubbery, and had been grubbed. This rubbishy wood was white with mildew, drusey, and brittle. Here, no doubt, was the enemy, and the effect was exactly like the larch rot, or disease called by some.

Another instance or fact I will just relate. Some sixteen or eighteen years ago, on a piece of old pasture ground was chosen to place a clump or plantation of *Cedrus deodara* facing the south-west, sloping high dry ground, was well trenched, surface sandy loam, subsoil brashy, loose sandy gravel. Was fenced in and planted; the trees grew away, did as vigorous and well as could be wished. Five years ago one fine plant turned of an unhealthy sickly colour. Why, the enemy has found them out! Yes, the old larch disease is here safe enough. What is the cause of this? Why, on examination, an old hedge had formerly run across the spot, had been grubbed and levelled. The old rotten, musty, mildewed, decayed roots and sticks left in the ground were undoubtedly the forerunners of this mischief, to which several other fine trees have since been sacrificed.

Bicton.

JAMES BARNES.

WEEDS.

THE common plants which grow by the roadsides and on the borders of fields, although constantly submitted to our observation in course of our walks, do not in general attract that attention which they deserve. They are characterised by the opprobrious epithet of "weeds," and as such are too often neglected and despised. Even the botanist, to whom every plant is more or less an object of study, hurries past them in search of the rarer productions of the vegetable kingdom; or if he does perchance cast a hasty glance upon them, it is only with the view of remarking something singular or uncommon in their appearance. Notwithstanding the neglect with which they are treated, weeds are not without their use in the economy of nature, whether we regard them as tending in some measure to support the salubrity of the atmosphere which we breathe, affording food to numerous tribes of insects and birds, as well as to man himself; or, finally, furnishing products which are useful and important in a medical point of view. Besides supplying the mere physical wants of the animal creation, weeds may be looked upon as contributing in a still higher degree to the well-being of mankind.

Although common weeds, such as the Dandelion and Shepherd's Pouch, are universally diffused, the latter being found so far south as Terra del Fuego, still there is a considerable difference in the character of weeds produced in different countries, and even in different parts of the same country. The common vegetable productions of Australia and the continent are in many respects dissimilar to those of Britain; and we find the dissimilarity still greater if we extend our attention to the warmer regions of the globe. If we confine our attention, however, to Scotland alone we shall find sufficient illustration of effect which climate and soil exercise over the vegetable kingdom. In the western districts of Scotland the roadsides and pastures are covered with the Sheep's Scabious, a plant unknown on the eastern coast; and,

again, the White Dead Nettle, so common and abundant in the neighbourhood of Edinburgh, scarcely exists in the vicinity of Glasgow.

Nature seems to have provided for the extensive diffusion of the common plants which form the principal covering of the surface of our earth. Their seeds are in general produced easily and profusely, and they are often furnished with feathery appendages, by means of which they are scattered far and wide. In many instances their roots descend a great depth, or run for a considerable way under the surface of the ground, so that it is a matter of great difficulty to eradicate them completely. Their powers of vitality are also very great. Though trodden under foot and exposed to the smoke of the town, with scarcely a gleam of sunshine to enliven them, they still tenaciously retain their vital properties, and continue to grow and flourish luxuriantly. In some of the closes in the High Street of Edinburgh the common Scurvy Grass used to flourish, although excluded from all the benefits of sun and shower, which are so essential to the existence of the more delicate plants of our island.

The length of time during which the common plants retain their power of germinating is remarkable. In this part of the country the seeds of the common white Clover have been found buried under 6 or 7 feet of peat moss, where they must in all probability have lain for centuries; and yet, when sown in the garden, they have vegetated easily and given rise to healthy vigorous plants. It is a curious fact that when ground is for the first time subjected to the plough in this country, a crop of white Clover very generally springs up, although the plant may not have been noticed on the spot previously. When some new soil was turned lately in one of the farms in this place, the Narrow-leaved Fumitory, a plant by no means common in Britain, began to grow in great abundance. The seeds had probably lain dormant for a long period, inasmuch as the plant had not been observed in that situation before, although it had been often subjected to the scrutinising search of the Edinburgh botanists.

The commonest weed, when met with in unexpected situations, or when cultivated in countries where it is not indigenous, often becomes an object of great interest. It was the celebrated traveller Park, who, when wandering on the African desert, worn out and fatigued and almost disposed to lie down in despair, had his attention attracted by a little moss, one which he had probably often before passed by unnoticed, growing in the wide waste without companions of any species—it was then he reasoned that, if the Almighty supported this insignificant plant in the desert, and caused it to put forth its leaves and fruit, why should he despond or once give way to the sentiment that there was not a Protecting Arm near? From reflections such as these he was stimulated to proceed, until he at length reached the oasis, where his strength was recruited.

The Daisy, when it accidentally springs up in Australia among some English earth which had conveyed seeds to that country, is viewed with different feelings from those with which I beheld it in this country. Dr. Carey writes the following beautiful lines upon the same flower:—

“Thrice welcome, little English flower!
My mother country's white and red;
In Rose or Lily till this hour,
Never to me such beauty spread;
Transplanted from thine island bed,
A treasure in a grain of earth,
Strange as a spirit from the dead
Thine embryo sprang to birth.”

The Whin, or Gorse, so called in this country and so common as to be looked upon with indifference, was by the great Linnæus, in whose native

country it did not exist, regarded with sentiments little short of adoration. On beholding it covered with its rich golden blossoms, he envied the country which possessed such a floral treasure.

I shall now endeavour to rescue from neglect a few of the common weeds, and will give a short account of some of those with which my readers are most familiar.

What plant more common than the Dandelion? What more despised? Yet it supplies a valuable medicine, and has furnished the means of subsistence to many of the human race. From it an extract is procured possessing diuretic properties, which has been employed with success in relieving the sufferings of humanity, more especially in dropsies and affections of the liver. When a swarm of locusts had destroyed the harvest in the island of Minorca, many of the inhabitants subsisted on this plant alone. The roots, when roasted, are to this day used by the poor at Göttingen as a substitute for coffee; and the young leaves, when blanched, are sometimes employed as a salad.

Coltsfoot abounds as a weed on all roadsides, where it expands its blossoms early in spring, before its leaves make their appearance. It has been remarked of this plant that the flowers, when in bud, are pendulous, and become erect when fully expanded; that they afterwards fade and droop till the seeds become ripe, when they again rise in order that the seeds may be more readily wafted by the wind to situations proper for their growth. The down on the leaves of the plant forms good tinder, and the leaves themselves are employed in coughs and asthmatic complaints.

The Burdock, well known by its bristly heads which adhere to the clothes, and which are often thrown into the air by boys for the purpose of catching bats, has also its medicinal and domestic uses. The young stems, when stripped of their rind, are boiled and eaten like Asparagus, and in a raw state they are prepared with oil and vinegar as a salad. A decoction of the roots is used as a substitute for sarsaparilla, to act as a tonic and cause gentle perspiration. The heads of a similar plant have of late been put to use in the manufacture of cloth, being employed as Teazles in raising the nap to the surface, which it is said no artificial contrivance could do nearly so well. Thus, in some districts, from being a despised weed this humble plant has become one of the most precious vegetable productions.

Kinnahaird.

ROBERT MURRAY, F.R.H.S.

(*To be continued.*)

GRAPES ALL THE YEAR ROUND.

THE excellent article by Mr. Hill on growing Grapes all the year round will be of much benefit to intending planters, in aiding them to select the best kinds for early and late vineries. As I have planted within the last three years nine vineries for the same purpose and rotation, and as my selection of sorts for the earliest-houses differs in a few of the varieties from Mr. Hill's, perhaps their names may be useful to the readers of the *FLORIST AND POMOLOGIST*. In No. 1, in the earliest vinery, in addition to Black Hamburgh, I have planted Purple Constantia, and for a White Grape, Chasselas Musqué. The Purple Constantia is a very early Grape, and to those who like highly-perfumed-flavoured Grapes, it is the best grown. The Chasselas Musqué is a well-known highly-flavoured early Grape, but it often cracks when colouring, which makes the bunches defective. With me in this house it never does so as its roots are under control, and water withheld during the ripening process. In No. 2 the Vines are principally Hamburghs, with the addition of Buckland

Sweetwater, Grizzly Frontignan, and White Frontignan. No. 3 contains mostly Hamburgs, Purple Constantia, Buckland Sweetwater, and two plants of the Golden Hamburg, which I find to be a good early Grape, but an uncertain variety when grown in late vineries. No. 4 is a very large house, being 106 feet in length by 18 feet in width, and started in the beginning of February. This house furnishes a supply through July, August, and September, and the varieties are principally Muscats, Black Tripoli, Hamburgs, and Frontignans. Nos. 5, 6, 7, 8, and 9, are late vineries in one range, about 250 feet long, and 14 feet wide. Muscats are planted in the earliest divisions, and for the three latest, Barbarossa, Trebbiano, Lady Downe's Seedling, Calabrian Raisin, West's St. Peter's, Burchardt's Prince, and Alicante. The Trebbiano kept with me last year till the 10th of April, and, although a little shrivelled, was excellent in flavour.

Welbeck Gardens.

WILLIAM TILLERY.

THE GOOSEBERRY CATERPILLAR.

This destructive pest often causes much annoyance and vexation. Last summer I observed about the plantations of the London market-gardeners acres of Gooseberry trees entirely stripped naked of foliage by it. The best and surest preventive and exterminator I could ever discover is to store away dry, in old boxes or barrels, all the wood ashes I can muster throughout the season from any refuse needful to consume by fire. To three bushels of dry wood ashes I add one bushel of chimney soot and one bushel of newly-slaked lime. Incorporate and mix the whole well together, and dredge the Gooseberry and Currant trees by hand well on a showery, moist, or misty day, in order that it might adhere. It not only acts as a destroyer and preventive to this pest, but also clears the plants entirely of moss and lichen. What falls on the earth and what is washed off after by the rain acts very beneficially to the healthy growth of the plants. It has also its beneficial effect on every other kind of fruit tree at all subject to moss or lichen by thoroughly cleaning them.

Bicton.

JAMES BARNES.

WINTER HAWTHORNDEN.

WITH AN ILLUSTRATION.

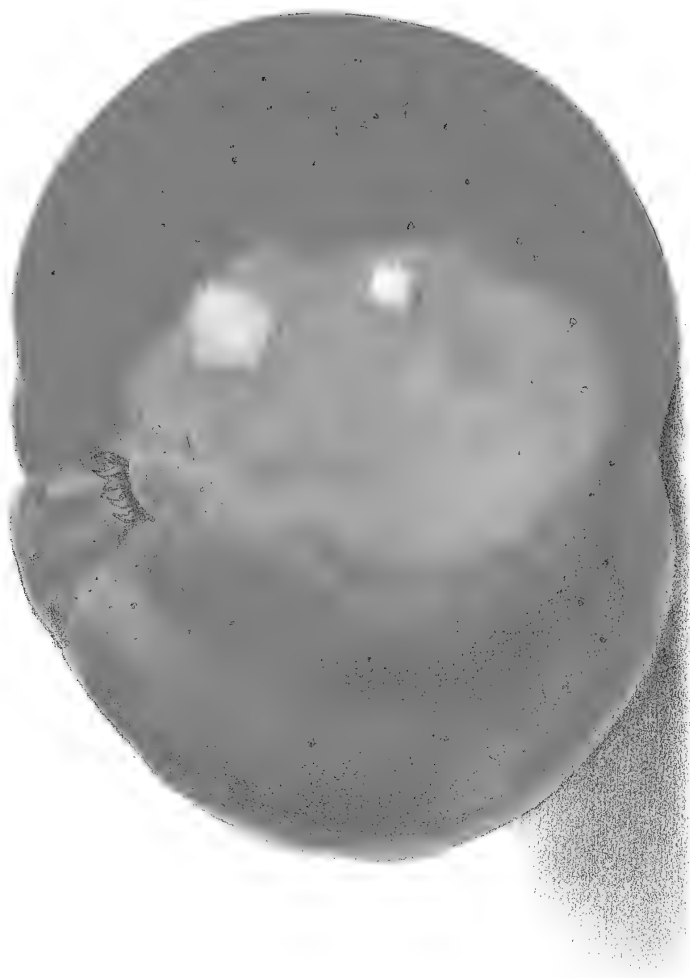
SYNONYME.—*New Hawthornden.*

THIS is a fine noble Apple, bearing some external resemblance to the old Hawthornden. The fruit from which the annexed drawing, by Mrs. Dix, was taken, was supplied to us by Mr. Rivers, of the Sawbridgeworth Nurseries.

The fruit is large, roundish-oblate, and even in its outline. Skin smooth and shining, pale yellow, with a blush of red on the side next the sun. The flesh is firmer than that of the old Hawthornden, with all its qualities.

A first-rate culinary Apple, in use from October to February or March.

It is remarkable while young for its large and handsome foliage and stout robust shoots, so that the trees may be distinguished from all others. Unlike its parent, the Old Hawthornden, it seldom or never cankers, and flourishes in soils in which that variety cankers and dies in a few years. No Apple is more likely to repay the orchardist who wishes to grow a good market fruit. The trees, owing to their compact habit of growth, may be planted more thickly than most other sorts; and a plantation of this sort on the Paradise stock, cultivated as bush trees, would well repay the cultivator; for the fruit such trees give are larger and more beautiful than the produce on standards.



Winter Hawthornden. Apple.

NOTES FROM KEW.

THE 1st of May has been anxiously anticipated as the day when the new conservatory here should be open to the public—nor are they disappointed; for at one o'clock on Friday the gates were open, and the long-treasured building was submitted to public scrutiny. For its external claims I am content to let "wiser heads divine." But enter the building, and if you can convince yourself that a gallery really exists, mount it, and then say, What do you think of the appearance? Certainly a fine one. Not only does the finely-painted roof impress you very agreeably, but you cannot help the thought—What will the plants be when they get established? Surely they will be worthy the labour that has placed them in their present position. I do not presume to furnish a list of the plants, but I may mention as being in bloom, *Callicoma serratifolia*, *Rhododendron Dalhousianum*, *Agapetis buxifolia*, *Senecio Fosterii*, several splendid *Acacias*, and in the south-end octagon a quantity of the *Citrus* family, the perfume of which is almost overpowering. The principal plants are arranged in beds divided by gravel walks, and running lengthways of the house; but to all I say, See it.

The show greenhouse in the Botanic Garden, known as No. 10, is extremely gay with *Azaleas*, *Geraniums*, *Calceolarias*, *Cinerarias*, *Aphelaxis*, *Pimeleas*, *Adenandras*, and an almost innumerable variety of flowering and ornamental-foliaged plants, among which may be mentioned especially *Gleichenia flabellata*, and *Funkia Sieboldi variegata*, a hardy plant, but particularly useful for pot-culture.

Among *Ericas* in No. 13 are *Devoniana* (a beautiful thing), *candidissima*, *E. vestita carnea*, *vestita rosea*, and many others of great beauty; indeed, it may be said of these, they are an extensive and thriving collection.

Mesembryanthemums, of which there is a large collection, are not attractive at this season as regards bloom.

But the Cacti begin to offer more to look upon. There are at present in bloom *Phyllocactus phyllanthoides*, *P. crenatus*; *Cereus Jenkinsonii*, *C. Mallisonii*, *C. Martianus*; *Mamillaria globosa*, with its humble little flowers; and *Agave densiflora*, *A. micrantha*, with a plant of *A. americana*, which seems to say, "I will very soon." The climbers here as usual promise well. A small plant of *Clianthus Dampieri* is in capital health and blooming well.

The stoves, of which the Palm-house must be ranked first, are attractive for the season. The Palms look exceedingly well; the beds in which they grow have been edged with *Selaginella*, giving them a pretty and lively appearance. Walks, edged with gravel have also been formed through the centre of the plants in the wings, which not only admits more light to the plants, but allows them to be seen to greater advantage. There are at present two flowers upon the *Seaforthia*, neither of which has been heard to burst the spathe. There is also a drupe upon *Areca Baueri*, a handsome little Palm. *Caryota urens* is still clamouring for more head-room, for which it requires frequent snubbings. *Musa sapientum* has been fruiting well this spring. *Musa ensete* is looking well, and the variegated *Musa vittata* is showing for bloom. There are plants here of *Cocos nucifera*, and *Latania rubra*, which promise well. Part of the shelves have been edged with slate, and filled up with plunging material, which is covered with a turf of *Lycopodium*. Not only do the plants do better thus, but it is a decided advance towards improved appearance.

In the small stove, No. 5, are some few good *Gloxinias*—for instance, *Charles Raes*, *Prince de Ligne*, and *Meteor*, interspersed with which are some beautiful *Caladiums*, *Begonias*, and a handsome little plant of *Pandanus javanicus variegatus*. Under the roof is trained a fine specimen of *Clerodendron splendens*, finely in bloom.

In No. 15 a large specimen of *Rhyncospermum jasminoides* delights with its abundant bloom and delicious perfume. *Cedum pictum*, and the broad-leaved variety of *Dracæna terminalis*, are also conspicuous here; a few *Ixoras*, too, are blooming well.

In No. 19 there is a small plant of *Musa coccinea*, terminating with its pretty scarlet bloom. This house is nearly all foliage; such things as *Carludovicas*, *Heliconias*, *Alpinias*, please with their variety. Here is also the curious *Adenum obesum* still in growth.

The large house near the entrance-gates (late New-Holland-house), has been appropriated to the growth of *Aroidea*, which are well represented. The pretty little *Anthurium Scherzerianum* is blooming here; and the prevailing green of the foliage is varied by variegated *Caladiums*, such as *Wightii*, *Belleymei*, *Chantini*, and *bicolor splendens*.

In bloom in the Orchid-houses are *Phalæonopsis grandiflora*, *Calanthe veratrifolia*, *Oncidium ampliatum*, *O. luridum*, *Lycaste Skinnerii*, *L. aromatica*, *Bletia Shepherdii*, and *Epidendrum elongatum*.

In the aquariums both the *Victorias* are planted, and promising well; the largest measures upwards of 2 feet across the leaf.

In No. 6 are two plants of the *Ouviranda*, which look pretty well. The shelves are gay with *Caladiums* and other ornamental-foliaged plants.

Much is being done here out of doors this spring, the plot containing the order Gramineæ has been remodelled, and a chain of beds has been formed on each side of the semicircular walk behind the Palm-house. This will, undoubtedly, be an improvement, as this portion of the grounds from the prevalence of evergreens looked rather sombre during the summer. A ribbon-bed has been formed on each side of the walk leading from the Cacti-house towards No. 2 museum.

In bloom on the walls are numerous *Wistarias*, *Clematis montana* (a pretty thing), *Coronillas*, &c. In the grounds are *Magnolias*, *Cydonias*, *Cytisus*, *Ulex*, *Arbutus*, *Ribes*, *Rhododendron Vesuvius*, and others. In conspicuous places on the grass are placed plants of *Gunnera scabra*, which have been protected during the winter, and are now sending up abundance of their showy rhubarb-like leaves. Small standard plants of *Amelanchier ovalis* have been very showy here this spring.

Visitors to Kew this summer will find the attractions considerably augmented upon the whole; indeed, they appear to appreciate them already. On Sunday, the 3rd, there were six thousand persons entered the ground, including their Royal Highnesses the Prince and Princess of Wales, the Duchess and Princess Mary of Cambridge.

J. McP.

THE METROPOLITAN EXHIBITIONS.

CRYSTAL PALACE, *May 23rd*.—Those who looked forward to a renewal of the competition between Messrs. Veitch & Son and Mr. Turner, in the Class for ten Greenhouse Azaleas, were doomed to disappointment, as the Chelsea plants were not present. It is but rarely that Messrs. Veitch & Son do send anything to the Palace Shows, and they refrained from doing so on this occasion: consequently Mr. Turner had the Azalea exhibition entirely his own way; and in the Class for ten varieties he staged two groups of splendid specimens, occupying the two corners where the nave intersects the transept towards the tropical department. These were placed first and second. The best group consisted of *Juliana*, *Optima*, *Gem*, *Perryana*, and *Glory of Sunninghill*, all Bright Reds; *Murrayana*, Purple; *Criterion*, Variegated; *Mary*, *Alba Magna*, and *Magnificent*, Whites. The second lot contained different to those just named, *Ghelsoni*, *Præstantissima*, and *Illustris Nova*, Reds; *Petuniæ-flora* and *Arborea Purpurea*, Purple; and *Iveryana*, White. Third, Mr. T. Page, gardener to W. Leaf, Esq., Streatham. With six varieties Mr. Turner was again first, having *Perryana*, *Sir C. Napier*, *Gem*, and *Extrani*, Bright kinds; *Admiration*, Variegated; and *Gledstanesi*, White. Second, Mr. T. Page, with *Juliana*, *Murrayana*, *Optima*, *Præstantissima*, *Criterion*, and *Gledstanesi*. Third, Mr. Smith, gardener to A. Anderson, Esq., Norwood Grove.

In the Class for eight new kinds Mr. Turner furnished two collections, and Messrs. Ivery & Son, of Dorking, three. Mr. Turner was first and third, and Messrs. Ivery second and fourth. The former had *Sir H. Havelock*, Brilliant (very bright red), *Magnet*, and *Comte de Hainault*, all Bright kinds; *Kinghorni*, Purple; *Étoile du Gand*, Variegated; and *Flower of the Day*, White. In the other group different from those were *Mars*, Bright Red; *Miltoni*, Purplish-rose; *Distinction*, Salmon edged with White; *President de Claves* and *Salmonacea alba-cintra*, Striped kinds; and *Madame Verschaffelt*, Salmon Rose, slightly edged with White. Messrs. Ivery & Son had some of these, and besides them *Prince Alfred*, very bright; *Variegata Superba* and *Duc d'Arenberg*, Variegated; *Kinghorni*, Purple; and *Leviathan*, double White. In another group were *Quentin Durward*, double Red; *Dr. Livingstone* and *Bouquet de Flore*, Purple.

Next to these were the *Roses*, shown in groups of ten kinds. Equal first prizes were awarded to Mr. W. Paul, Waltham Cross, and Messrs. H. Lane & Son, Berkhamstead, having varieties scarcely differing from those produced at the Regent's Park. The few days' interval had greatly improved Mr. Paul's plants. Third, Messrs. A. Paul & Son, Cheshunt, no second prize being awarded. With ten kinds in smaller pots Mr. Turner, Slough, was first, having capital plants of *Baronne Provost*, *Madame Boll*, *La Reine*, *Dr. Bretonneau*, *Madame C. Wood*, *Model of Perfection*, *Madame Damaizin*, *Madame Bravy*, *Catherine Guillot*, and *President*. Second, Mr. W. Paul.

Stove and Greenhouse plants had greatly advanced in attractiveness since the Park Show. With fifteen specimens Mr. B. Peed, gardener to Mrs. Tredwell, Norwood, was first, having fine well-bloomed plants of *Allamandas grandiflora* and *cathartica*, *Ixora alba*, *Ericas depressa* and *Cavendishii*, *Acrophyllum roseum*, *Franciscea confertiflora*, *Tetrathoea cricæfolia*, *Polygalas*, *Eriostemons*, and *Azaleas*. Second, Mr. J. Green, gardener to Sir E. Antrobus, Cheam, with *Stephanotis floribunda*, *Franciscea calycina*, *Rhododendron Gibsoni*, *Pimelea Hendersoni*, *Dracophyllum gracile*, *Hedera macrostegia*, *Aphelexis macrantha rosea*, *Azaleas*, *Allamanda grandiflora*, and others. Third, Mr. Baxendine, gardener to W. H. Smallpiece, Esq., Guildford. With twelve varieties Mr. Chilman, gardener to Mrs. Smith, Epsom, was first, having *Genotyllis tulipifera* and *G. macrostegia*, *Franciscea con-*

fertiflora, *Erica Cavendishii* and *depressa*, *Azalea arborea purpurea*, *Aphelexis spectabilis grandiflora* and *macrantha rosea*, *Pimelca Hendersoni*, *Eriostemon pulchellum*, *Polygala Dalmaisiana*, and *Acrophylllum venosum*. Second, Messrs. J. & J. Fraser, Lea Bridge Road. With eight varieties Mr. B. Peed was first; Messrs. J. & C. Lee, Hammersmith, second; and third, Mr. T. Page, gardener to W. Leaf, Esq. With six varieties Mr. T. Page was placed first, having *Pimelea decussata*, *Allamanda Schottii*, *Hedera tulipiferum*, *Erica Cavendishii*, *Dracophyllum gracile*, and an *Azalea*. Second, Mr. C. Smith, gardener to A. Anderson, Esq., with a splendid plant of *Hoya bella*, *Erica ventricosa coccinea*, *Azalea Iveryana*, *Chorozema macrophylla*, *Rhynchospermum jasminoides*, and *Aphelexis rupestris grandiflora*. With twelve fine-foliaged and variegated plants Messrs. Lee were first; and equal second Mr. C. Hutt, gardener to Miss B. Coutts, Highgate, and Mr. Young, gardener to W. H. Stone, Esq., Havant. Some huge specimens of *patens* were among these, interspersed with tree Ferns, *Caladiums*, *Dieffenbachias*, &c.

Orchids were very showy, and generally had good heads of bloom. Mr. McMorland's fine plants were absent; but they will, no doubt, be seen at the Regent's Park June Shows. With sixteen varieties Mr. R. Bullen, gardener to A. Turner, Esq., Leicester, was first, having *Anguloa Clowesii* and A. Ruckeri, Rollißon's and Veitch's varieties of *Vanda suavis*, *Ærides odoratum major* (a splendid plant), *Lindleyana*, *Virens superbum*, and the Foxbrush variety; *Cypripedium caudatum*, *Phalænopsis grandiflora*, a splendid pan of *Orchis foliosa*, *Cattleya Mossiae*, *Saccolabium guttatum* and *S. curvifolium*, *Dendrobium Devonianum*, and *Calanthe veratrifolia*. Equal first prize to Mr. G. Baker, gardener to S. Bassett, Esq., Stamford Hill, with *Vandas suavis* and *insignis*, *Anguloa Clowesii*, *Lælia cinnabarina* and *L. purpurata*, *Phalænopsis grandiflora*, *Saccolabium retusum*, *S. curvifolium* and *S. guttatum*, *Cypripedium Lowii* and *C. barbatum superbum*, *Cattleya Mossiae*, *Ærides odoratum cornutum* and *A. virens*, and *Dendrobium macrophyllum giganteum*, having three magnificent spikes of flowers. Third, Mr. T. Page; and, fourth, Mr. S. Woolley, Cheshunt. With ten varieties, Mr. C. Penny, gardener to H. Gibbs, Esq., Regent's Park, was first, having *Phalænopsis grandiflora*, *Vanda suavis*, *Lælia purpurata*, *Calanthe veratrifolia*, *Sobralia superba*, *Anguloa Ruckeri*, *Cœlogyne Lowii*, *Cypripedium barbatum nigrum*, *Saccolabium retusum*, and *Trichopilia crispata*. Second, Mr. Lovell, gardener to H. E. Gurney, Esq., Nutfield, Surrey; and, third, Mr. S. Woolley. With six varieties Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, was first, having *Saccolabium guttatum*, *Ærides crispum*, *Dendrobium densiflorum*, *Ærides Larpentæ*, *A. Fieldingii*, and *A. Schrœderi*. Second, Messrs. T. Jackson & Son, Kingston, with *Vanda suavis*, *Phaius Wallichii*, *Cattleya Mossiae aurantiaca*, *Cypripedium barbatum superbum*, *Lælia purpurata*, and *Dendrobium Devonianum*.

With six Cape Heaths Messrs. T. Jackson & Son were first, having *Ventricosa tumida*, *Carnea Depressa*, *Florida*, *Begonia*, and *Tricolor Demissa*. Equal second, Mr. B. Peed and Mr. T. Page, the first having *Vassafiora*, *Eximia Superba*, *Depressa*, *Ventricosa Coccinea Minor*, *Tricolor Ventricosa*, and *Magnifica*. Mr. Page had *Florida*, *Victoria Regina*, *Cavendishii*, *Vassafiora*, *Coccinea Minor*, and *Beaumontia*. Third, Mr. Young, gardener to W. H. Stone, Esq., Havant.

Some tall Cacti were staged, but they were not so good as usual. With six varieties Mr. J. Green, gardener to Sir E. Antrobus, was first; second, Mr. Waters, gardener to A. Perry, Esq., Sydenham; and, third, Mr. Young, gardener to R. Barclay, Esq., Highgate.

Pelargoniums were in prime condition, some grand specimens being staged. In the Open Class for ten varieties, Mr. Bailey, gardener to E. T. Drake, Esq., Shardeloes, near Amersham, was first, having Mr. Marnock, Sir C. Campbell, Monarch, Sanspareil, Ariel, Diadem, Lady Canning, Rose Celestial, The Belle, and Scarlet Floribunda. Second, Mr. Turner, with capital plants, but not so large as those of Mr. Bailey's, having Beadsman, Empress Eugénie, Guillaume Severyns, Rose Celestial, Etna, Diadem, Festus, Bacchus, Fairest of the Fair, and Candidate. Third, Messrs. J. & J. Fraser. In the Class for six varieties, exhibited by Amateurs, Mr. Shrimpton, gardener to A. Doxat, Esq., Putney, was the only competitor, having plants of Rose Celestial, Peacock, Governor-General, Fairest of the Fair, Vestal, and Sanspareil.

With six Fancy varieties Mr. Turner was first and third, having *Reine des Fantaisies*, *Arabella Goddard*, *Delicatum*, *Clemathea*, *Lady Craven*, and *Acmé*. In the other group were *Modestum*, *Ellen Beck*, *Cloth of Silver*, *Undine*, *Reliance*, and *Queen of the Valley*. Messrs. Fraser had *Acmé*, *Queen of the Valley*, *Bridesmaid*, *Clara Novello*, *Cloth of Silver*, and *Celestial*, and was second.

A few poor *Cinerarias* were produced in Class 21 by Mr. W. Reid, of Sydenham, to which a third prize was awarded. With six *Calceolarias* Mr. James, gardener to W. F. Watson, Esq., Isleworth, was first and second, having splendid plants of a dwarf herbaceous kind, several seedlings of which he has named. Mr. Reid, of Sydenham, was third; and a group of dwarf spotted kinds were staged by Mr. J. Jennings, Shipston-on-Stour. This seems to be a peculiar strain, one well deserving cultivation.

Of Cut Flowers there were some good Tulips from Mr. J. Hunt, of High Wycombe, in

twenty-four varieties—viz., *Magnum Bonum*, *Maid of Orleans*, *Garibaldi* (a seedling), *Anastasia*, *Royal Sovereign*, *Polyphemus*, *General Barneveld*, *Madonna*, *Strong's Queen*, *Duchess of Sutherland*, *Vivid*, *Romeo*, *Blémart*, *Triomphe Royale*, *Victoria Regina*, *Duke of Sutherland*, *George Hayward*, *Heroine*, *Pandora*, *Lady Downes*, *Lord Denman*, and seedlings. Second, Mr. Turner; third, Mr. T. Westbrook, Abingdon. With stands of twenty-four *Verbenas* Mr. W. H. Treen, of Rugby, was first and second, having splendid trusses of the following among others:—*Foxhunter*, *Magnificent*, *Rugby Hero*, *Snowflake*, *Firefly*, *Apollo*, *La Gloire*, Mrs. Harrison, *Nemesis*, *Decorator*, *Venus*, *Auricula*, Mrs. Moore, *Kenilworth*, *Countess of Aylesford*, *Rainbow*, and *Kate*. Third, Messrs. S. Perkins & Son, Coventry, with some good examples, among which was their bright scarlet flower, *Lord Leigh*.

With fourteen varieties of *Pansies* Messrs. Downie, Laird, & Laing, Edinburgh, were first; Mr. E. Shenton, of Hendon, second; and third, Mr. James, Isleworth. Messrs. Downie & Co. also had a collection of *Fancy Pansies* of fine quality, and also some seedling flowers of the same, among which were *Maccaroni*, a large purple flower with dark blotch; *Black Prince*, a very dark flower, marked with pale yellow on the upper petals; *H. O. Nethercote*, rosy crimson self, with narrow margin of white to each petal; and *Earl of Rosslyn*, reddish-clarot self with dark blotch. Among the named flowers were fine blooms of *Belle Esquemoise*, *Michael Ange*, *Princesse Mathilde*, *Belle Lilleoise*, *James de Watts* (a yellow flower with black blotch), *Princess Alice*, *Noemi Demay*, *Distinction*, and *Cedo Nulli*.

Some good seedling *Pelargoniums* were staged in the Class appropriated to them. *G. W. Hoyle*, Esq., of Reading, had *Diadem*, deep rose with dark top petals, very fine form and striking; *Artist*, deep salmon rose, with dark top petals and white throat—a large flower of first-rate form and very novel; *Alexandra*; and *The Prince*. Mr. Turner had a bright flower named *Orion*; also *Royal Bride*, delicate pink with crimson blotch on the top petals, edged with carmine and white. Mr. Wiggins had *Princess of Wales*, carmine, deeply stained with crimson, white throat, and dark top petals—very showy; *Prince of Wales*, a glowing deep rose veined with dark crimson, and dark top petals; *Standard Bearer*, very bright orange scarlet, with dark top petals; and *Maid of Honour*, pale lilac, with dark top petals edged with lilac, large and striking, but wanting form.

New and Rare Plants came from several exhibitors. Foremost was Mr. Bull, of Chelsea, who had *Caladium Cannanti*, in the way of *Chantini*; and *C. mirabile*, dark grey leaves ribbed with bright emerald and spotted with white; *Caladium Lowii*; a variegated *Euonymus*; and some pretty varieties of the *Mimulus maculosus*; with specimens of *M. cupreus*, showing by comparison how much the latter had been improved by hybridisation. Mr. Standish again produced his two new varieties of *Clematis* from Japan; and also *Weigela* species from the same source, having pure white flowers. Mr. R. Parker again produced *Rhododendron* *Countess of Haddington*. Messrs. F. & A. Smith had variegated *Fuchsia Pillar of Gold*, bright green foliage, veined with red and edged with yellow; and also some of those beautiful double Chinese *Primroses*. Mr. B. S. Williams had his *Azalea elegantissima*, noticed before; *Aralia Sieboldi* var.; and *Caladium Lowii*. A seedling *Bhotan Rhododendron*, named *Lady Cranworth*, delicate blush, was shown by Mr. J. Horwood. Boxfulls of beautiful cut *Roses* came from Messrs. Paul & Son and W. Paul, containing some splendid flowers.

The centre transept had large groups of plants most tastefully and effectively arranged, furnished by the Crystal Palace Company, with groups of statuary rising here and there from among them. The whole arrangement of these and the Exhibition reflected the highest credit on Mr. Houghton, the Superintendent, whose courtesy and kindness are ever manifested on these occasions.

A small collection of Fruit was staged on a table in the Concert-room, containing excellent examples of *Pines*—such as *Providence*, *Black Prince*, *Black Jamaica*, and *Queen*. Mr. Hill, of Keele Hall, had some splendid *Black Hamburg Grapes*; so had Messrs. Clements & Frost; and with 12 lbs. weight, baskets of fine fruit were furnished by Messrs. Horwood & Clement (who had equal first), Frost, and Hill. *White Grapes* were generally unripe, Messrs. Horwood & Clement had the best fruit. *Cherries* and *Strawberries* were very fine. *Figs* were good; and *Peaches* and *Nectarines* though not numerous were of good quality. Some *Melons* and a few items in the *Miscellaneous Class* made up the Show.

ROYAL HORTICULTURAL SOCIETY, May 27th.—This, the first great Exhibition, was held in the nave of the Exhibition building; and a glorious Show it was, arranged there, where, a year ago, a teeming multitude gathered together daily to gaze on examples of the busy world's industry. The Royal visitors, that were so anxiously looked for at the Crystal Palace, honoured this Exhibition with their presence, and the finest of weather waited on them and those who came after.

Stove and Greenhouse Plants were but a reproduction of those that appeared at the Crystal Palace. It was hoped that Mr. Spode's plants from Rugeley would have been present, but they were not. With fifteen varieties, Mr. B. Peed, gardener to Mrs. Tredwell, was first; second, Mr. J. Green, gardener to Sir E. Antrobus; and, third, Mr.

R. Baxendine, gardener to W. H. Smallpiece, Esq., Guildford. In the Nurseryman's Class for twelve varieties, Messrs. J. & J. Fraser were first; Messrs. Lee, of Hammersmith, second; and, third, Mr. W. Cutbush, of Barnet. With nine varieties, Mr. H. Chilman, gardener to Mrs. Smith, Epsom, was first; and, second, Mr. W. Kaile, gardener to Earl Lovelace, Ripley, Surrey. The Class for six varieties brought together several competitors, Mr. A. Ingram, gardener to J. Blandy, Esq., Reading, being first; second, Mr. T. Page, gardener to W. Leaf, Esq., Streatham; third, Mr. Smith, gardener to A. Anderson, Esq., Norwood, having the splendid plant of *Iloya bella* that was so much admired at the Crystal Palace the Saturday previous. A fourth, and two extra prizes, were also awarded in this Class. Collections of twenty Orchids were staged by Mr. Milford, gardener to E. McMorland, Esq., Haverstock Hill, who was first, having *Odontoglossum*, *Phalenopsis* (from Peru), *Laelia purpurata*, *L. Brysiana*, and *L. elegans*; *Odontoglossum naevium*, *Dendrobium Farmeri*; some beautiful varieties of *Cypripediums*, *Ærides*, *Cattleyas*, &c. Second, Mr. G. Baker, gardener to A. Bassett, Esq., Stamford Hill; and, third, Mr. Bullen, gardener to A. Turner, Esq., Leicester. With twelve varieties, Messrs. Veitch & Son, Chelsea and Exeter, were first; and, second, Mr. Woolley, of Cheshunt. With ten varieties, Mr. Penny, gardener to H. Gibbs, Esq., Regent's Park, was first; second, Mr. T. Page, gardener to W. Leaf, Esq., Streatham; and third, Mr. Green, gardener to Sir E. Antrobus, Bart., Cheam. With six varieties, Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, was first; second, Mr. Smith, Syon House; and third, Mr. Wheeler, gardener to J. Philpotts, Esq., Stamford Hill.

Among these groups were to be found some good specimens of *Laelia purpurata*; *Vanda suavis*, in variety; *Cattleyas*, among which *C. citrina* was noticeable; *Anguloa Clowesii*; *Cypripedium Lowii*, having three very fine flowers; *Saccolabium rotundum*, and other varieties; *Ærides*, in varieties; *Phalenopsis grandiflora*, and *amabilis*; the free-blooming *Dendrobium nobile*; *Ocologyne Lowii*; *Oncidium ampliatum majus*, and *O. flexuosum*; some showy specimens of *Dendrobium densiflorum*, &c.

On this occasion Messrs. Turner and Veitch met once more in competition with Azaleas, and the order of the first Royal Botanic Show was reversed. On this occasion Mr. Turner was placed first, Messrs. Veitch & Son second, and Messrs. J. & J. Fraser third. In the Amateurs' Class likewise, for nine varieties, Mr. Green, gardener to Sir E. Antrobus, was first; second, Mr. T. Page, gardener to W. Leaf, Esq.; and, third, Mr. B. Peed, gardener to Mrs. Tredwell. The Class for six varieties brought numerous groups. Mr. Penny, gardener to H. Gibbs, Esq., Regent's Park, was first; second, Mr. Todman, gardener to R. Hudson, Esq., Clapham Common; third, Mr. A. Ingram, gardener to J. Blandy, Esq., Reading; while a fourth and three extra prizes were awarded. There were grand examples of *Admiral*, *Arborea Purpurea*, *Chelsoni*, *Criterion*, *Delecta*, *Extraneæ*, *Gem*, *Gledstanesi Formosa*, *Glory of Sunninghill*, *Iveryana*, *Juliana*, *Magnificent*, *Lateritia*, *Murrayana*, *Optima*, *Præstantissima*, *Triumphans*, and *Variegata*.

A group of *Rhododendrons* came from Mr. C. Noble, of Bagshot, of colours ranging from deep crimson to delicate blush. The most striking were *Snowball*, *The Prince*, *The Sentinel*, *The General*, and *Princess Alexandra*.

With twelve *Roses* in pots, Mr. William Paul, of Waltham Cross, was first; Messrs. H. Lane & Son, Berkhamstead, second; and Messrs. Paul and Son, third. With six varieties, Mr. Terry, gardener to W. G. Pullen, Esq., Youngsbury, was the only exhibitor, and was placed first. Of *Hybrid Perpetuals* there were good specimens of *Baronne Prevost*, *Comte de Paris*, *Comtesse Mole*, *Général Jacqueminot*, *Jules Margottin*, *La Reine*, *Léon des Combats*, *Lord Raglan*, *Paul Perras*, *Senateur Vaisse*, and *Triomphe de Paris*. Of *Hybrid Bourbon and China Roses* there were *Charles Lawson*, *Chénédolé*, *Coupe d'Hébé*, *Paul Ricaut*, and *Souvenir d'un Ami*. Of *Tea-scented* varieties, *Gloire de Dijon*, *Madame de St. Joseph*, *Madame Willermoz*, *Niphotos*, *Souvenir d'un Ami*, and *Adam*. There were also good specimens of *Noisette La Marque*, and *Blairii* No. 2.

Cape Heaths were identical with those at the Crystal Palace. With six kinds, Mr. B. Peed, gardener to Mrs. Tredwell, was first; second, Mr. T. Page, gardener to W. Leaf, Esq.; and, third, Messrs. T. Jackson & Son, Kingston.

With twelve *Pelargoniums*, Mr. Turner was first, and Messrs. J. & J. Fraser second. In the Amateurs' Class for nine plants, Mr. Shrimpton, gardener to A. Doxat, Esq., Putney, was first; and, second, Mr. Weir, gardener to Mrs. Hodgson, Hampstead. It will be seen that Mr. Bailey, of Shardeloes, was not present on this occasion. With six *Fancy* kinds, Messrs. Turner and J. & J. Fraser were first and second; and Mr. Weir in the Amateurs' Class, with Mr. H. Lamb, gardener to Capt. Cahill, Southall, second. Of *Large-flowering* kinds the best specimens were—*Ariel*, *Beadsman*, *Candidate*, *Desdemona*, *Fairest of the Fair*, *Leviathan*, *Lord Canning*, Mr. Marnock, *Mazeppa*, and *Rose Celestial*. Among the *Fancy* kinds were good plants of *Acme*, *Arabella Goddard*, *Celestial*, *Clara Novello*, *Delicatum*, *Lady Craven*, Mrs. Turner, *Queen of the Valley*, and *Roi des Fantaisies*.

Of new and rare tender plants in flower, prizes were awarded to Mr. Standish, of Bagshot, for the ten varieties of *Clematis* from Japan, and also for *Weigela* species; and to

Messrs. Veitch & Son for *Dracophyllum* species, all of which have been noticed before. Of the same, not in flower, prizes were given to Mr. W. Bull, of Chelsea, for *Caladium Lowii*, *Pandanus elegantissimus*, *Areca dealbata*, and *Yucca lineata lutea*. To Messrs. Veitch and Son, for *Miconia argyroncura*, exhibited before as a supposed *Melastoma*, and strongly resembling a *Cyanophyllum* in habit; for *Eranthemum* species, from Peru, with deep green oval leaves marked with rosy-pink nerves; and for *Pandanus elegantissimus*. To Mr. Young, for the same; to Mr. S. Standish, for *Acer* species, from Japan, with variegation of yellow; and to Mr. A. Verschaffelt, of Ghent, for *Dieffenbachia Verschaffeltii*, ribbed with a pale creamy white. In the Class for newly-introduced plants, Messrs. Veitch & Son had a First-class Certificate for *Lapageria alba*, with several pure white blossoms as large as *L. rosea*. A Second-class Certificate to the same, for *Sphærogynë latifolia*; and Certificates of the next grade for *Lomaria gibba*, for the variegated *Lonicera*, and for *Anthurium Scherzerianum*. A Certificate was also awarded to Mr. Bull, for the handsome *Cibotium princeps*. Of new hardy Ornamental plants, Messrs. Veitch & Son had *Abies firma*, about 12 inches high, from Japan; and *Spiræa* species, from California, a dwarf bushy shrub, with small corymbs of bright rosy flowers, from which issue long white anthers. In this Class Mr. B. S. Williams, of Holloway, had a handsome Crested Fern, *Lastrea oreopteris cristata*. Messrs. Ivery and Son, of Dorking, and Mr. W. Bull, had a variety each of seedling hardy Ferns; the last-named also had *Euonymus ovatus aureus variegatus*, having a bright golden blotch on its deep green leaves.

In the Class for Seedling Florists' Flowers, Messrs. Veitch & Son received a First-class Certificate for *Rhododendron Sesterianum*; the same awarded to G. W. Hoyle, Esq., of Reading, for *Pelargoniums* Diadem and Artist; and Labels of Commendation for *The Prince*, a showy orange red, with white throat and dark top petals; and for *Penelope*, soft rose veined and spotted with maroon, and dark top petals. Second-class Certificates to Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, for *Pelargoniums* Prince and Princess of Wales; the former a showy crimson flower, marked with maroon, the latter being much in the same way. Collections of Miscellaneous Plants came from Messrs. A. Henderson & Co., Veitch & Son, Bull, and Salter of Hammersmith; Ferns from Messrs. Ivery & Son and Mr. H. Lavey; cut Roses from Messrs. Paul & Son; and Roses in pots from Mr. W. Paul; Pansies from Messrs. Downie, Laird, & Laing, and Mr. Hooper, of Bath; a grand pan of *Eucharis amazonica* from Mr. J. Fleming, of Clevedon; *Verbenas* from Mr. Treen, of Rugby; and a group of Variegated *Geraniums* from Messrs. E. G. Henderson & Son, St. John's Wood.

The first prize for a group of plants for conservatory decoration was awarded to Mr. Turner, Slough, who had arranged his as a square bank, consisting of *Azaleas*, *Pelargoniums*, *Calceolarias*, *Roses*, *Ferns*, &c., with here and there specimens of *Cyanophyllum magnificum*; the whole being edged with an inner row of *Perilla nankinensis*, a second row of *Stachys lanata*, having for an outer edging *Arabis variegata*. Messrs. Veitch & Son were placed second, having a conical stage filled with red and white *Azaleas*, *Pelargoniums*, *Hydrangeas*, *Fuchsias*, *Calceolarias*, &c., edged with a row of *Stocks* and *Mignonette* placed alternately. Vases, hanging-baskets, and columns were also employed with great effect, the whole being arranged with good taste. Messrs. Lee, of Hammersmith, were third; and Messrs. W. Bull and E. Shenton, of Hendon, also had groups.

Some items of fruit came in small quantities, consisting of *Strawberries*, *Grapes*, *Pines*, *Melons*, *Peaches*, *Figs*, &c. *Mushrooms* came from Messrs. Cuthill, of Camberwell, and Drummond, of Bath. Some Vegetables were also present, comprising *Asparagus*, *Celery*, *Cabbages*, *Cauliflowers*, *Carrots*, *Turnips*, *Lettuces*, *Onions*, and *Spinach*.

Quo.

SEEDLING TULIPS.

We have received some very excellent seedling Tulips recently broken by Mr. William Willison, of Whitby, some of them of remarkable excellence. Mr. Willison has already sent out very fine flowers. His Sir J. Paxton, Gem of Gems, King, J. Sanderson, J. F. Ward, and Uncle Tom, are well-known favourites. We subjoin a description of them:—

William Dean, feathered bizarre, very fine, and very solid marking; rather small.

Dr. Young, flamed bizarre, good dark solid marking, and very fine.

Polly, feathered byblomen, very fine solid marking; rather long cup, but very beautiful flower.

Louis Napoleon, a fine bizarre, a flower of great substance; very pure, good shape and size.

Rosa Madi, dark-coloured rose, long, rather pointed petals, with heavy marking on the top of each petal; quite pure.

William Cooper, a large, heavy-marked bizarre, nearly pure feather, rather pale yellow, quite pure and distinct; extra fine shape.

Mrs. Beecher Stowe, a superb-feathered byblomen, well marked, fine shape, full size, and very pure; a fine flower.

William Hepton, feathered bizarre, short cup, good petal, deep yellow, marking not so solid as some; style of Groom's Duke of Wellington.

Thomas Bromfield, feathered bizarre, deep golden yellow, very fine, well marked.

Paragon, flamed byblomen, fine marking, quite pure, and a distinct variety of considerable merit.

Magenta, flamed rose, very long in the cup, very narrow base, stained stamens, and impure base.

Rosy Byblomen, a fine-flamed flower, much the stylo of Nora Criena.

Feathered Rose, very fine, slightly marked, medium size; very good.

PRESERVING RHUBARB FOR TARTS AND PIES.

BY MR. D. THOMSON, ARCHERFIELD GARDENS, DREM.

It is perhaps not generally known (certainly it is very rarely acted upon if known), that Rhubarb can be so preserved without sugar as to be in first-rate condition all winter and early spring for tarts, and so obviating the necessity for forcing this esteemed vegetable where there exists any inconvenience in forcing it. The preserved Rhubarb is much more preferable than that which is forced early by the aid of hot stable litter on the ground where it grows, there being always a disagreeable smack in the flavour from the ammonia evolved by the dung in the process of fermentation.

To preserve Rhubarb in the manner to which I have referred, the best time to do it is about the middle or end of May in ordinary seasons, just when the stalks are at their best for tarts.

The method of preserving is to cut the stalks, after being peeled, into pieces about an inch square, and then pack them into wide-mouthed quart bottles. The bottles should then be set in a copper or boiler, with cold water up to nearly the necks of the bottles. The fire should then be lighted under the copper and the water heated to 170°, and the bottles allowed to remain in the water at that temperature for half an hour. After that the bottles should be filled up with boiling water to within an inch of the cork. After being corked tightly, the bottles should be laid on their sides in a cool dry place, where they are to be kept. The freshness with which Rhubarb can be kept in this manner is astonishing; and one family that I served preserved in this manner all the Rhubarb required in winter and spring, and preferred it to that which is forced in the usual way. By corking up the bottles when their contents are quite hot, the heat acts by coagulating and rendering insoluble and inactive a kind of gluten which is a principal agent in the commencement of fermentation; a fact which I should think is equally applicable to the preserving of all fruits which are erroneously allowed to cool before being tied down.—(*Scottish Gardener*.)

ORCHARD-HOUSES IN AMERICA.

An amateur horticulturist of Pennsylvania writes:—

"I fruited some thirty pots and boxes of Peaches, Nectarines, Apricots, Figs, &c., last year, and you can hardly imagine the pleasure and satisfaction it afforded to be able for weeks together to pluck the delicious fruit—not in homœopathic doses either; and the gratification and benefit derived from their use by an invalid wife and several sick friends, both about home and in the hospitals. A good, efficient, and moveable heating apparatus, not requiring a great amount of fuel or constant attention, would be a great acquisition to one like myself, as well as to many others, who attend personally to their own houses, not for profit but as a pleasurable relaxation.

"So many of our family and people are engaged in this momentous struggle for union and nationality, that increased load of cares devolve on those left at home. Notwithstanding, I think and hope our interest in horticulture will not, or at least ought not, to flag; and, from present indications, the ardour among its votaries is increasing instead of diminishing."

CALENDAR OF OPERATIONS.

CONSERVATORY.

The greatest attention should now be paid to the watering of all plants in active growth	Climbers not	in flower should be well syringed daily to keep them clear of red spider, which, if allowed to get a-head, will be very troublesome. Remove all specimen plants as
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soon as the flowers begin to decay. Keep up a good display of bloom. Late-flowering *Pelargoniums* will take the place of the early ones. "Fancies," when well done, are very effective for decorative purposes. *Fuchsias* will also take the place of *Azaleas*. Give plenty of air during the night as well as the day, guarding the openings with gauze or not to keep the bees out. Shade in bright weather.

GREENHOUSES.

HARDWOODED PLANTS.—The more delicate plants in-doors will require attention. In bright weather shade for a few hours in the middle of the day. Give plenty of air, and attend well to the watering. Shift any plants that may require it. Syringe daily overhead all plants not in flower. The plants out of doors will also require attention. In hot dry weather they should be frequently watered overhead. The young plants in frames will require constant attention. Shift such as require it. Attend regularly to training of the plants. Turn them round every three or four days that all parts may have the benefit of sun and air. **SOFTWOODED PLANTS.**—*Pelargoniums*.—If not already done the early-flowering plants should be cut down without delay; they should be kept rather dry for a few days, and should then be encouraged to break. To prolong the beauty of the plants in flower shading will be necessary through the middle of the day. Cuttings will now root freely in the open border. *Cinerarias*.—Look occasionally over those planted out, and see they do not suffer for want of water in dry weather. The first batch of seedling plants should all now have a liberal shift, and be kept growing freely. Young seedlings pot off as soon as they are large enough. *Calceolarias*.—Attend to the shading and watering of these while in flower. Remove those going out of flower to a shady situation, where they will throw up their offsets, which should be taken off for cuttings as soon as they are large enough. *Fuchsias*.—Plants in flower must be well attended to in watering. They should also be shaded in the middle of the day, and some gauze or net should be placed over the openings to keep out the bees. The plants for flowering late must be well looked after.

STOVE.

Many of the plants will have made good growth; and to get this properly matured, air must be freely admitted, and shading should be less used. Attend well to the watering. *Clerodendrons* and other robust-growing plants should be watered occasionally with weak liquid manure. Syringe daily all plants not in flower. Look well after insects. Plants for winter-flowering should now be attended to. Shift any that may require it, and put in cuttings of whatever it may be desirable to increase the stock of.

FLOWER GARDEN.

The principal work here at present will be to keep everything in proper order. Go frequently over the beds, and nicely regulate and peg down the young shoots until the surface of the ground is well covered. Attend to the tying-up of *Dahlias*, *Hollyhocks*, and all tall-growing plants. In dry weather attend to the watering of plants in baskets, vases, &c. *Carnations* and *Picoles*.—Propagate by layering. *Pinks* and *Pansies*.—Propagate by cuttings. Put in cuttings of double *Wallflowers*, *Pentstemons*, *Antirrhinums*, *Phloxes*, and choice herbaceous plants of all kinds. Young seedling *Wallflowers*, *Sweet Williams*, *Brompton Stocks*, and other biennials, should either be planted out into reserve-beds, or where they are to flower. Roses must be attended to. Cut off all decaying flowers. Destroy insects. Cuttings of the young wood, with the bottom part partly ripened, will now strike freely in sandy soil. Cut Box-edgings. Clean and roll walks, and maintain great order and neatness.

FORCING.

FRUIT.—*Pine Apples*.—Plants swelling-off fruit should be watered occasionally with liquid manure. All watering should cease when the fruit begins to colour; they should then have plenty of air. The

plants for winter-fruiting will now be "starting," and every necessary attention should be paid to them. The *Black Jamaica* is the best of all *Pines* for winter fruiting. When they "show" fruit at this season they flower before the autumn, and under favourable circumstances always swell off well. Plants for fruiting next spring and summer should be put into their fruiting-pots at once. Succession plants that require a shift should be potted forthwith; they will then complete their growth before the dull days of autumn. In replugging the plants, allow plenty of room between them for their growth during the next three months, and keep them as near the glass as possible. They will not require much water until they begin to root freely into the fresh soil. *Vines*.—Sprinkle well with water, and frequently, the floor, paths, borders, of all vineries where the fruit is swelling, otherwise it will be difficult to keep the foliage clear of red spider. Give an abundance of air during the day, and in vineries where the *Grapes* are ripening some air should be admitted at night. *Peaches* and *Nectarines*.—Attend to directions in previous calendar. *Figs*.—Give an abundance of air during the day; also a little at night. Whilst the second crop of fruit is swelling, the trees should be well watered, and as moist an atmosphere kept up as possible by syringing the foliage, and well sprinkling the paths, borders, &c. *Cherries*.—See the trees are clear of insects, and that they do not suffer from want of water. *Strawberries*.—No time should be lost in layering in small pots as many plants as may be wanted for forcing next season. Those layered last month should be put into their fruiting-pots at once. Use a compost of good strong loam and dung. After the plants are potted they will require considerable attention; they should be placed in a situation where they will be fully exposed to the sun and air. They will not require much water until they begin to root into the fresh soil; but if the weather be dry they should be carefully syringed every afternoon, otherwise the red spider will be troublesome. *Melons*.—Withhold water from fruit that is ripening. Give plenty of air during the day. Attend carefully to the want of the successional crops. Water when required. Maintain a good bottom heat; on no account allow the foliage to get crowded. Ventilate freely. *Cucumbers*.—Stop, thin, and regulate the shoots. Keep the foliage healthy and free from the red spider. See the bottom heat is sufficient.

HARDY FRUIT.

Peaches, *Nectarines*, and *Apricots*.—In dry weather these should have a good soaking of water, and the borders should be mulched with long dung. Red spider will be troublesome on *Peach* and *Nectarine* trees that are dry at root. *Peaches* and *Nectarines*.—Nail-in shoots as they advance, removing all not wanted for next year, and stopping all gross ones. *Morello Cherries*.—Treat in a similar manner. Remove all foreright shoots of *Apples*, *Pears*, *Cherries*, and *Plums*; and if the spurs are too crowded they should be thinned. Go over *Gooseberry* and *Currant* bushes, and thin out the young wood. Thin-out *Raspberry* canes. Cover trees with nets to protect from birds.

KITCHEN GARDEN.

Continue to hoe and stir the surface of the ground between the growing crops, and water well when necessary. Get good breadths of *Carlinflowers*, *Broccoli*, *Brussels Sprouts*, *Borecole*, and *Winter Greens* of all kinds planted out as soon as possible. Plant-out *Celery* in well-manured trenches, and earth-up that planted-out last month. *Leeks*.—Plant-out in well-manured trenches. *Endive*.—Sow and plant out. *Lettuces*.—Sow, and plant out for successional crops. *Spinach*.—Sow. *Turnips*.—Sow a large breadth for winter supply. *Cabbages of sorts*.—Sow about the middle of the month. *Shallots* and *Garlic*.—Take up, dry, and store away. *Potatoes*.—Ash-leaved *Kidneys*, as soon as ripe, should be taken up, laid in the sun to green, and then stored away for sets next spring. As herbs come into flower cut and dry in a shaded airy situation. Remove all crops as soon as they are over, and keep the walks, paths, and every place as clean as possible.—M. S.



Disa Grandiflora Superba .

DISA GRANDIFLORA var. SUPERBA.

WITH AN ILLUSTRATION.

NEARLY forty years ago there appeared in the "Botanical Register" a plate representing, in very faithful terms, the normal form of *Disa grandiflora*. The drawing was made from a plant grown by a Mr. Griffith, of South Lambeth, who received it from the Cape of Good Hope, and who had the honour of being the first person in Europe who succeeded in flowering it. What the conditions were under which it was induced to flower at that time we are not informed; but it was suggested in the work referred to that "it will probably succeed best in very fine sandy peat, never allowed to become saturated with moisture; and, during the period when the plant is at rest, kept quite dry." This, which is the treatment usually accorded to Cape bulbs, may have been the means of misleading cultivators in the management of *Disa grandiflora*; and hence the reason why its flowering in this country has been an event of such rare occurrence. For the discovery of the successful cultivation of this splendid plant we are indebted to Charles Leach, Esq., of Clapham Park, who has been unusually fortunate in blooming it; and the practice he adopts is thus recorded in the *Gardeners' Chronicle* for 1861, page 646:—

"With regard to the *Disa*, it should be borne in mind that it is a mountain and a bog plant, which means, that it abominates a close stove or Orchid-house, and that it delights in water. The other treatment is as follows:—When done flowering, let the pots be plunged into ashes in the open garden, fully exposed to sun and air—there let them remain, watered moderately in dry weather, with a hand-light over in long continuous rain, and to protect them against frosts—till October or November, when they should, if necessary, be shifted into larger pots, and removed into a greenhouse, where, just protected from frost, and near the glass, syringed over twice a-day, the young offsets will continue to grow, and the parent bulbs will again shoot up. In February a little increase of heat may be given, and in March and onwards a syringing, even three times a-day, will not be too much; and the natural increase in the temperature will then suffice to bring up the flower-stems in May and June, at which time a little more heat in a warm and airy conservatory will do no harm.

"At the Cape the *Disa*, I am told, dies down. Here I find that it does not require to do this; the young offsets coming up long before the old plant gives any sign of taking the species of rest produced by drought. I am further informed that at the Cape, while the open country is burnt up with the hot rays of the sun, Table Mountain enjoys the benefit of the celebrated Table Cloth [of clouds], with which the south-easters cover it during the summer season; and I conclude that the *Disa* in this way has plenty of moisture at its roots during the dry season, while at other times it luxuriates in water."

In the *Journal of Horticulture*, vol. i, new series, page 295, Mr. Beaton says, "It requires the very same kind of treatment as we have always advised for *Tritonia aurea*, and which so few followed out. Among all the bulbous-looking plants in cultivation, there are no two of them so much alike in their constitution and in their very peculiar habit of dying down yearly but never going to rest. Before the growth of this year dies back, that for next year is up and doing, and they both spawn very much at the roots; both are very thirsty plants, and both resent and sulk at the least attempt at forcing them or submitting them to one extra degree of heat more than is necessary to keep them from the frost."

The variety *SUPERBA*, so admirably represented in our accompanying plate,
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was raised by Mr. Leach, and exhibited by him before the Floral Committee of the Royal Horticultural Society, when it received a first-class certificate. It is a remarkably fine form of *Disa*; the colour of the flowers, which are larger and better proportioned than usual in the parts, being richer, and more decidedly contrasted than in the ordinary forms. The dorsal sepal is deeply stained with purple rose, and marked with very distinct crimson-purple forking lines, which run out into dots towards the edge; the lateral sepals are of a light crimson, and the yellow petaloid development of the column distinctly spotted.

AMONG THE RHODODENDRONS.

THE magnificent exhibition of Rhododendrons furnished by Mr. John Waterer, of Bagshot, Surrey, were on view at the Gardens of the Royal Botanic Society, Regent's Park, during the months of June and July. This splendid annual treat did not seem to be wanting in any of its essential points that always distinguish it, for there were extent, and variety, and quality, and the best arrangement—all uniting to make up a grand spectacle, and a "Metropolitan Exhibition" of itself. And it was so, for thousands went to see it and admire. There was nearly an acre of Rhododendrons under canvass, all with marvellous unanimity in flower at the same time. The plants ranged in size, from dwarf bushes to tall and imposing standards; in colour, from rich dark crimson and scarlet to the most delicate pink and pure white, descending in great variety of shades and diversity of marking; and then in point of value, from plants at comparatively cheap prices to those of rare possession.

Each spring are these plants brought from Bagshot, and removed there again at the end of the blooming season. The cost and trouble of this must be something considerable; for some of the standard plants have heads 30 feet in circumference. When here, they are arranged with all the aid that taste and skill can render to create the most charming effect; and when in the acme of flower, it is, indeed, a sight long to be remembered.

Mr. John Waterer, jun., who with Mr. M. Waterer has the exhibition under their special care, and who are always ready to afford information with the greatest courtesy and kindness, kindly accompanied me through the tent, and pointed out its most salient points of interest. He informed me that most of the kinds exhibited were particularly hardy, having withstood in many parts of the country, without being injured thereby, great exposure to cold, even when the thermometer has stood at from 6° to 12° below zero—a quality that greatly enhances their value to planters. Gathered here were the finest varieties of really hardy Rhododendrons in cultivation, covered with fine bold flowers on immense trusses, the dimensions of some of the trusses being perfectly astonishing; the plants generally possessing a vigorous habit, and having the great acquisition of being abundant bloomers at a season when they are safe from the destructive effects of spring frost. I was informed by Mr. John Waterer that these beautiful varieties had been obtained by hybridising the Himalayan varieties with the hardy American kinds, combining, by such process of fertilisation, diversity and advance in colour with lateness of bloom. At Bagshot they have this season bloomed some most exquisitely-coloured seedlings, the tintings of which surpass anything yet offered to the public, many of which are as yet unnamed.

I selected the following from this exhibition as being the most striking and beautiful:—Mr. Fitzgerald, brilliant rosy crimson; Perruzzi, clear rose; Duchess of Sutherland, bright rosy crimson band of colour surrounding a white centre; Sidney Herbert, very bright carmine with black spots; Sir Colin

Campbell, purplish-lilac with orange spots; John Waterer, intense glowing carmine, a very abundant bloomer; Mrs. John Waterer, bright clear rose, finely spotted; Lady Easthope, beautiful clear rose with dark marking; Madame Van de Weyer, a beautiful rosy crimson; Dinorah, a very distinct variety, purple spotted with white; Carravaggio, fine dark rose with black spots; Joseph Whitworth, bright claret, a particularly fine and showy kind; Earl of Shannon; Mrs. John Penn; Lady Grenville; Lady Eleanor Cathcart; Genserie; Album Virginale; Alarm; Minnie, blush white, with chocolate spots; and many others of equal attractions, and in great variety.

Interspersed among the Rhododendrons were plants of *Kalmia latifolia*, and *K. latifolia myrtifolia*; the last a beautiful variety, superior to the other in this respect, that its flower is much more profuse and abundant, and presents to it, as an agreeable contrast, a very dark green foliage.

And not only is this well-known firm famed for its Rhododendrons, but also as cultivators of Conifers, and hardy ornamental shrubs and forest trees of all kinds; their extensive grounds being stocked with examples of these last-named in abundant variety.

Quo.

THE EFFECTS OF GEOLOGICAL POSITION ON CERTAIN CONIFERÆ.

THE general diffusion of foreign Coniferæ, and their importance, not only as regards the effect which they will eventually produce in our landscapes, but as regards their intrinsic economic value, induces me to hope that a notice of certain peculiarities which I have had opportunities of remarking in a few species, may not be unacceptable, and may possibly elicit papers on the same subject from persons who are qualified to treat of it more fully.

In and about Tortworth Park, at the extremity of the Bristol Coal Basin, the underlying beds of carboniferous limestone and old red sandstone crop out at a high angle, with occasional beds of the triassic and liassic formations resting on their flanks, producing not only great irregularities of surface, but important differences both in the constitution and quantity of the superincumbent soil. Over the whole of this ground the more common Coniferæ are planted in great abundance; and, with a few exceptions, owing chiefly, I believe, to geological reasons, they grow rapidly and well.

As a general and sufficiently obvious rule, the Coniferæ thrive in proportion to the depth of the surface soil on which they stand. This is especially the case with the Deodar and *Pinus insignis*. The rule does not, however, appear to apply invariably to *Abies Douglasii*, as I possess specimens growing as vigorously on the cold and sterile shales of the carboniferous limestone, as others on the deep and warm soil of the old red sandstone.

The most fastidious of the Coniferæ which I have had an opportunity of observing is, undoubtedly, *Cryptomeria japonica*. On the limestone its leading shoot is always defective, and its growth generally devoted to the formation of a nest-like mass of small shoots; whilst, on the old red, a formation deficient in lime, its growth is regular, upright, and graceful, and so rapid, that I have no hesitation in affirming that in this locality it would outgrow the Larch.

The Deodar, on the other hand, appears to be the least discriminating, and the most accommodating of all the Coniferæ. No position, and no variety of soil, appear to come amiss to it; on lime or sandstone, rock, or clay, it grows with equal facility, though depth of soil, as before stated, invariably contributes to rapid growth.

Pinus insignis appears to prefer the old red to the limestone; on the latter formation it maintains its health, but its annual growth is comparatively small. The most vigorous specimen of this Pine which I possess stands on a deep loam, formed by the detrital matter of the overhanging hill, at the point of contact of the old red sandstone and the clay of the lower lias. This tree, which was planted about the year 1843, is now 40 feet high, and, at a foot from the ground, 5 feet in circumference.

In *Araucaria imbricata*, though planted in considerable abundance, and in every variety of soil, I have not been able to detect any decided preference for one formation over another. It has an evident dislike to a wet locality, and it generally, though not exclusively, thrives best upon a deep soil.

Cupressus funebris, and *Cupressus Goveniana*, are both growing vigorously on limestone rock, with but little surface soil. The former of these trees is thriving equally upon a deep soil of the old red sandstone. *Cupressus macrocarpa* is growing rapidly on the clay of the carboniferous limestone.

Taxodium sempervirens appears to be extremely capricious in its taste as regards the formation on which it grows; but I have in several cases remarked that it thrives, and even appears to luxuriate, in a shade which proves deleterious and often fatal, to *Pinus insignis*.

There are many other Coniferæ which appear to manifest habits or tastes peculiar to themselves; but which are either too young, or in numbers insufficient to justify me in attempting to generalise upon them. Indeed, all the remarks which I venture to offer in this short paper, are not made with a view to dogmatise upon the subject, but in order to call the attention of persons cultivating this tribe of plants, to the importance of selecting the position of such Coniferæ as show any decided tastes. With some reference to geological position, it is true that many formations are not often met with upon one estate, more especially in one park—the locality in which the more valuable Coniferæ are generally planted; but where such conditions do occur, a knowledge of the formation in which each species appears to thrive best cannot fail to prove important. Before such knowledge can be attained, more extended and more accurate observations will be necessary; and should this paper prove the means of calling the attention of more competent persons to this study, I shall feel that I have not recorded my brief experience in vain.

EARL DUCIE, in *Transactions of the Scottish Arboricultural Society*.

STRAWBERRIES.

THE Strawberry crop and season here have been excellent. A powerful West-Indian sun has brought out flavour which, for the last two years, I could not detect. The crops of Wonderful, Eliza, and Sanspareil, have been especially heavy. With the exception of the Queen and shy-setting Brittany White Pine, the others have cropped well. As I can get no clay or sandy loam, I must give up the Queen, which is still the best.

Let me first speak of novelties. 1. *The Royal Hautbois*.—I thought this was an advance last year, and now I am sure of it. It is a certain setter and heavy cropper. The fruit is very large and of exquisite flavour; as good as the Black Hautbois.

2. *Frogmore Late Pine*.—I consider this to be a most valuable addition. It is hardy as a plant; and the fruit is handsome and of good brisk Pine flavour. It is a heavy cropper. Messrs. Leach and Knox, respectively the head gardeners of Lord Portman and Mr. Farquharson, brought me a

handsome present of Grapes from Lord Portman on Friday, the 10th of July, and looked round. They were much pleased with the Peaches and "remanets" of the crops of Strawberries, especially with Eliza.

3. *Eclipse*.—This is early and good, and of a peculiar aromatic flavour. The plant is hardy and a good cropper.

4. *Marguerite*.—This is earlier than the former; the crop has been great, and the size of the berries enormous. The flavour is good for so large a Strawberry. I measured one berry and found it to be over 7 inches in circumference. The leaves are glazed. It is a remarkable Strawberry and worthy of adoption. The berries want the fine colouring of Sanspareil. Frost has no effect whatever on the plant.

5. *President*.—This is hardy, and the fruit of good flavour. The flesh is solid to the centre. The berries are large and sufficiently abundant.

6. *Lucas*; 7, *Emma*—both Belgians; are good, and good growers, and good bearers. The former is, I believe, a seedling from La Constante; but neither is, I think, equal to La Constante as to crop, form, colour, firmness, evenness of berry, and flavour. But as plants they are both stronger and quicker growers, and would be more likely to suit diverse soils and situations.

8. *Sanspareil*.—This is one of the hardiest and most robust Strawberry plants that I have ever had; it is one of the greatest croppers, and crops for a long while. The fruit is rather buttery and acid, and of good coned form, and of brilliant red colour. It is a useful family sort. Frost has no effect on the plant.

9. *Boisselot Seedling No. 1* (Nantes).—This is later than the Frogmore Late Pine. It is hardy and of robust habit; a heavy cropper, of good size and flavour. It immediately precedes Eleanor.

I still recommend these older sorts—10, Rivers' Eliza; 11, Wonderful; 12, Empress Eugénie; 13, Trollope's Victoria; 14, Bieton White Pine; 15, Alice Maud; 16, Eleanor; 17, the old Red and White Alpines; 18, Scarlet Pine; and 19, La Constante. The two last are extra in flavour. From the Scarlet Pine I think the Rival Queen was derived; but it is not so good a setter.

Mr. Taylor, of Fencote, Yorkshire, speaks of La Constante as extra extra. This summer has suited it here. The crop and flavour have been very good. Messrs. Leach and Knox, however, were loudest in the praises of the Frogmore Pines which had not been previously picked; they were thoroughly ripe and good, though not, in my opinion, equal to La Constante.

If the readers of the *FLORIST* AND *POMOLOGIST* select from these nineteen sorts they cannot be hurt; and I think they must find what they want. Mr. de Jonghe says La Constante likes land "neither too strong nor too light, neither too wet nor too dry." The others, I should say, could be grown in diverse soils and localities. There are other excellent first-class Strawberries which do not suit my soil: these I must leave to other people to recommend. Suitability is the soul of life; it is of no use keeping unsuitable Roses and Strawberries, however good they may be in certain soils and localities. There are some Roses and Strawberries that will do nothing without alumina in some form or other.

I must not forget to observe that after our review we had supper and a pleasant chat. It would be a good and improving thing if these re-unions took place more frequently. If the review fails, there is still the pleasant chat and the supper. I have never studied comparative anatomy, but I believe that the nearest way to the human heart is down the throat.

Rushton.

W. F. RADCLYFFE.

WEEDS.—PART II.

THE Nettle grows on waste and neglected places, flourishing alike on open commons and in dirty ditches of the suburbs of towns. The Nettle has neither beauty nor fragrance to recommend it to the ordinary observer; yet it is well worth careful inspection on account of the beauty of its structure. Then it has a sting if handled gingerly, but seize the plant heartily, and it will give you little discomfort.

The Nettle is a very common, low-bred, vulgar plant; but, nevertheless, in its family and alliances may be found some of the noblest members of the vegetable kingdom; such are the Bread-fruit tree, the Mulberry, the Hop, the Banyan, and the deadly Upas. It is not for its botanical beauty or respectable connections that I wish to put in a word for the Nettle, but for its uses, which are too much overlooked. Although growing everywhere, it is very partially appreciated, and then only by the economical. As an old woman's remedy, and a good one too, it is used in scurvy, gout, jaundice, hemorrhage, paralysis, &c. Nettle-tea, were it generally used as a spring drink, would frighten the proprietors of that much-advertised sarsaparilla of old Dr. Jacob Townsend. The expressed juice makes a permanent green dye for wool. The root boiled with alum yields a good yellow dye. And yet not for these uses, but more especially for its qualities for humans do I wish to say a word in favour of the poor Nettle; and as the time is at hand I hope the word may be in season.

It is as a pot-herb that I would advocate its use, and the spring is the best time for gathering Nettles for that purpose. When dried and used as fodder they are capital for cows, increasing the quantity and improving the quality of their milk. The stalks of the old Nettles are little inferior to flax for making linen cloth, being used for that purpose in America, Germany, and formerly in some parts of England and Scotland. The famous Indian Grass-cloth Chu-Ma is woven from the fibres of a Nettle.

The numerous species of Grasses which grow on roadsides are distinguished alike by their elegance and their importance in agriculture. The Quaking-grass and Hair-grass are among the most beautiful, and are culled as ornaments for chimney-pieces. Common Rye-grass is the chief ingredient in hay. Yellow Oat-grass yields excellent straw for bonnets; and the awn, or bristle, of the common Wild Oat forms a good hygrometer, to determine the quantity of moisture which exists in the atmosphere. The seeds of the Floating Sweet-grass, which grows in watery places and ditches by the wayside, possess nutritive qualities, and are commonly sold under the name of Manna Croup. In some of the Grasses we observe a wise provision of nature to insure their propagation. The common Sheep's Fescue-grass, which forms a fine turf on all hilly pastures, when it grows on the plain produces plenty of ripe seeds which vegetate easily; but when it grows on the mountains where the seeds are not likely to come to maturity, it becomes viviparous, producing shoots or germs, which ultimately detach themselves from the plant, fall to the ground, and become separate and independent plants. The seeds of the Groundsel and Greater Plantain, two most abundant weeds, are used as food for birds. The root of common Yarrow is employed medicinally as a stimulating tonic, while its flowering-tops are used as tea in Orkney. The seeds of Goose-grass, as a blooming plant met with in all hedges, are roasted as a substitute for coffee. Common Hemlock yields a valuable medicine, administered for the relief of pain in many diseases. The young shoots of Goose-foot when peeled and boiled, are eaten as Asparagus, while the wild Carrot gives origin to the culinary vegetable cultivated in our gardens. The root of the Silver-weed,

which creeps along every roadside, is eaten roasted or boiled like Parsnips; and the common Water-cress furnishes a much-liked salad. The root of the hedge Bindweed may serve as a substitute for jalap, while that of the Tormentil has been prescribed as an astringent tonic.

The little Scarlet Pimpernel, ornamenting the borders of our fields, is one of those "sweet remembrancers which tell how fast the winged moments fly." It opens its red blossoms at eight o'clock in the morning and closes them about noon.

"Such is the science to the peasant dear,
Which guides his labour through the varied year;
While he, ambitious 'mid his brother swains
To shine, the pride and wonder of the plains,
Can in the Pimpernel's red-tinted flowers,
As close their petals, read the measured hours."

The flowers also close on the slightest approach of rain; and hence the plant has been denominated the Poor Man's Weather-Glass.

The common Daisy was treated in the days of chivalry with great respect as the emblem of fidelity in love, and was worn as such at tournaments—

"When in his scarf the Knight the Daisy bound,
And dames at tournaments with Daisies crowned,
And fays forsook the purer fields above
To hail the Daisy, flower of faithful love."

Many of the common weeds, even in their native state, are attractive on account of the beauty of their flowers. The Broom, as it is called by the poet's pen, the "Bonnie Broom," and the Whin or Gorse, though shapeless and deformed, and dangerous to the touch, has yet its bloom, and decks itself with ornaments of gold. The Tufted Vetch with its clusters of blue flowers, and the Convolvulus, with its large white blossoms, add in no small degree to the beauty of our hedgerows, and well merit a place in our gardens.

The cultivated Rose, with its gorgeous double flowers, is highly prized by every florist, while the simple Burnet Rose expanding its single flowers by the roadside, is passed by as unworthy of notice; and yet it is to this despised plant that the greater number of our garden Roses owe their origin. Most of the wild Geraniums would appear to advantage in our gardens, and would undoubtedly have been cultivated long ere now had they not been looked upon as vulgar weeds. These plants are not only remarkable for the beauty of their flowers, but also for the peculiarity of structure connected with their seeds. It has been remarked by Withering that among the numerous instances of obvious providential design and contrivance in the structure of the seeds and seed-vessels of plants, few are, perhaps, more remarkable, or more strikingly display themselves as the workmanship of an intelligent Artificer, than what we meet with in the seeds of some species of Geranium. Each of the seeds in these plants is covered with a distinct seed-coat peculiar to itself, which, after having enclosed the seed, runs out in the form of a narrow appendage or tail. Each of these appendages has the property of contracting itself into a spiral or screw-like form when dry, and again extending itself into a right line when moist. By means of this property the seed when ripe is first detached from the plant, and afterwards kept in motion, according to the dryness or wetness of the weather, until it meets with some crevice in the earth into which it can insinuate itself.

I have thus noticed rapidly a few facts connected with some of the common weeds found by the wayside. My remarks might have been easily extended to a much greater length but for want of time and space; enough, however, has been said to show, that in the meanest departments of the natural world, there is matter to engage our interests and draw forth our sympathies.

Kinnahaird.

ROBERT MURRAY, F.R.H.S.

REMARKS ON PEARS.

I NOTICED with some interest the observations of Mr. Tillery, on keeping Apples and Pears, in the *FLORIST AND POMOLOGIST* for February, page 13, and also his just remarks on the qualities of the Winter Nelis Pear; but for the sake of those who may not have it on different aspects, I may say that Mr. Tillery's plan may be followed with Pears upon one tree by merely gathering the ripest at different periods. I wrote on this in a former paper, and now state my opinion that many of our autumn and winter Pears are gathered too soon. For instance: Last autumn I left some Marie Louise, Winter Nelis, and some other later kinds on the trees after the leaves were off, and exposed to about 6° of frost. The fruit was kept on shelves in the usual way, and some of the Marie Louise lasted to the 1st of February, and also the Winter Nelis to the 18th March. This is the longest time that I ever kept those two excellent sorts, which were grown upon a south wall. The Winter Nelis were rather large; the rich flavour, however, of this Pear is nearly equal in those of smaller size; but for February, the Joséphine de Malines is surpassed by none, next to which come the Ne Plus Meuris, Broompark, Knight's Monarch, Beurré Rance, and perhaps Beurré Duhaume, and also Beurré Gris d'Hiver. I found all these good in February, this season; but not so the following:—Beurré Triomphant was juicy, but insipid; Simon Bouvier, dry and worthless; Beurré Bretonneau, doubtful; Jean de Witte, not juicy, but sweet, as were the Winter Crasanne, and Susette de Bavay. The last, however, is a great bearer, and is perhaps not very well known; the inner rind of the peel is of an orange colour, so unlike the green rind of the Beurré Rance already noticed. But those I have found fault with may be otherwise in some seasons and in different situations. For small growers, however, the safest plan is to select those kinds, the general character of which is best understood.

J. WIGHTON.

ZÉPHIRIN GRÉGOIRE PEAR.

WITH AN ILLUSTRATION.

AMONG the new Belgian Pears that have been introduced during the last few years, there is none that ranks higher for the season in which it is at maturity than Zéphirin Grégoire. It was raised by M. Grégoire, of Jodoigne, from the same batch of seedlings as produced Louis Grégoire and Souvenir Simon Bouvier.

The fruit is of medium size, obtuse pyriform, even and regular in its outline and somewhat truncated at the stalk, which is surrounded with several prominent plaits.

Skin smooth and shining, green at first, and dotted with brown dots, but afterwards becoming pale yellow as it ripens, strewed with cinnamon-coloured dots. When grown against a wall the fruit that is much exposed to the sun sometimes acquires a pale crimson blush.

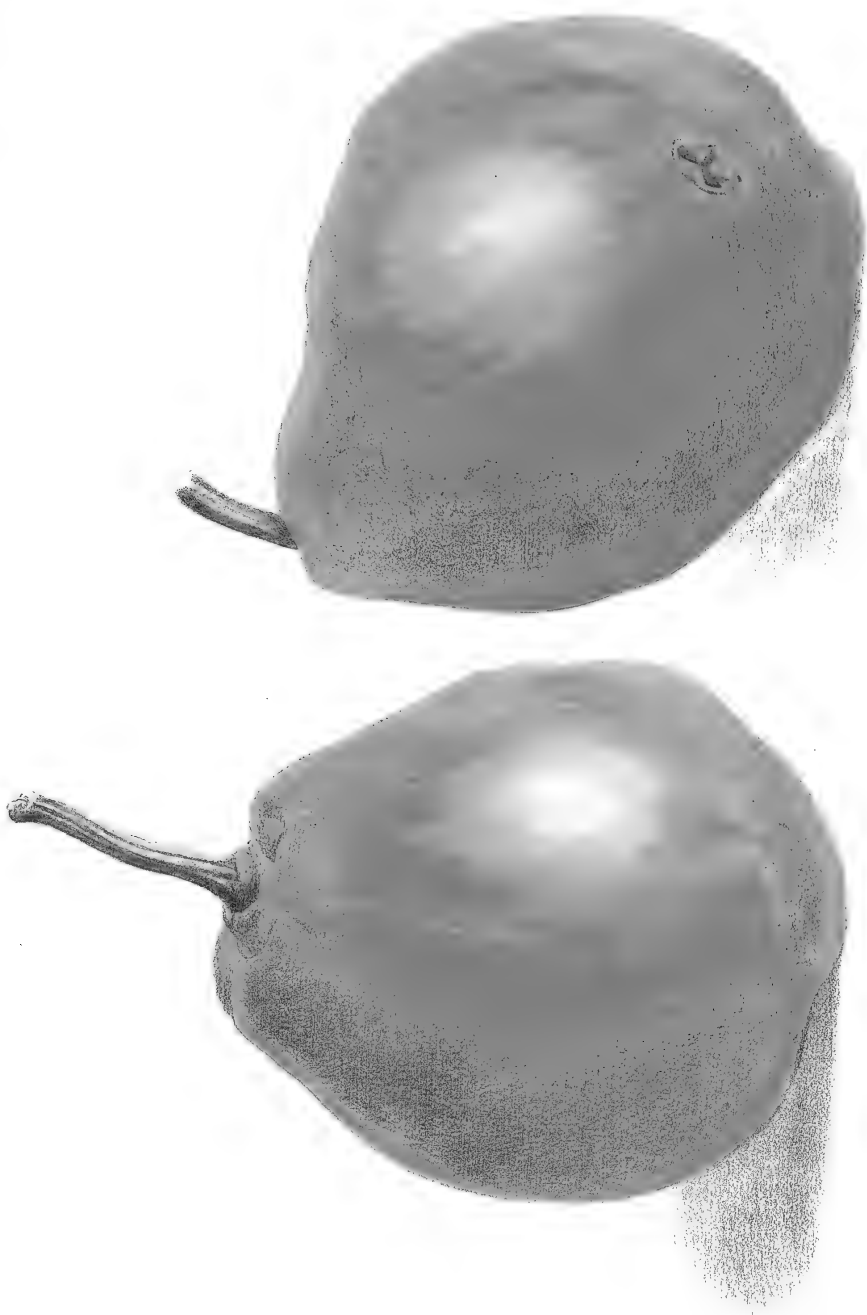
Stalk stout, from 1 inch to $1\frac{1}{4}$ long, inserted without depression, and generally with a fleshy swelling at the base where it is attached to the fruit.

Eye open, and with long acuminate segments not at all depressed.

Flesh white, tender, juicy, buttery, and melting. Juice abundant, rich, sugary, and with a fine perfume.

This is a most delicious Pear, and, like Joséphine de Malines, is always good. It comes into use in December, and continues till February.

The tree makes an excellent pyramid, is perfectly hardy in our climate, and is generally a good bearer.



Two pears, one above the other

AWARDS OF THE ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

May 5th, 1863.

ATHYRIUM FILIX-FEMINA var. **SAGITTATUM** (Moore).—Mr. W. Bull, Chelsea [F.C.C.].—A remarkably elegant dwarf sport of *Fieldia* of small neat habit, the fronds gracefully arching and symmetrical, with the bifid form of pinnæ extending over the greater part of the frond; the apex attenuated, and the normal basal pinnæ small, so as to match with those above them. The acute point and refracted pinnæ give the frond an arrow-like appearance, and hence the name.

BROWALLIA JAMESONI, var. **MULTIFLORA**.—Messrs. Veitch & Son [S.C.C.].—A remarkably gay-looking and free-blooming shrub adapted for conservatory decoration, quite like *B. Jamesoni*, except that some of the flowers are of a deeper orange tint, and that the present is an abundant bloomer, while the other is shy. It has the same neat ovate leaves and the same tendency to an elongated habit of growth, which is its fault; but in a large bush this is not very apparent, and the flowers are so abundantly produced at the ends of all the twigs that it becomes exceedingly ornamental. The young plants, which grow up with a single stem, bear a head of flowers at the top.

CASSIOPE FASTIGIATA.—Messrs. Veitch & Son [F.C.C.].—A beautiful dwarf *Andromeda*-like hardy shrub, introduced to cultivation by Dr. Moore, of the Glasnevin Botanic Garden. It is something in the way of *Cassiope* (or *Andromeda*) *tetragona*, but has erect stems of some 8 or 10 inches high, clothed with imbricated leaves ranged in four rows, so that the branches are tetragonous. They are freely decorated with drooping white bell-shaped blossoms.

CLEMATIS FLORIDA v. **STANDISHII**.—Mr. Standish [F.C.C.].—A very handsome Japanese plant, apparently a variety of *C. florida*, having the sepals sessile as in that species; the flowers were of a deep violet blue. It was regarded as quite an acquisition.

CLEMATIS FORTUNEI.—Mr. Standish, Ascot [F.C.C.].—A magnificent hardy Japanese climber with downy ternate leaves, the terminal leaflet of which in the plant produced was three-lobed. The flowers are very large, double, white, and with a delicious scent somewhat resembling orange-blossom. The flowers were remarkable for having the sepals stalked instead of sessile. It was a very distinct and remarkably fine plant.

DRACOPHYLLUM sp.—Messrs. Veitch & Son [F.C.C.].—An erect-habited, branched, and rather sturdy-looking greenhouse evergreen shrub, likely to become a useful exhibition plant. It had pungent, imbricating, awl-shaped leaves, and roundish terminal heads of white flowers. It had been obtained from King George's Sound.

MIMULUS MACULOSUS var. **MARVEL**.—Mr. Bull [F.C.C.].—One of a numerous set of hybrids obtained by crossing the variety of garden *Mimulus*, called *Gaiety*, with the recently-introduced *M. cupreus*. The result has been the production of a race of beautiful flowers, speckled in various ways with coppery-red dots. The present is one of the paler sorts, with the yellow ground-colour dotted with the deeper colour moderately thick, the dots being rather more sparing in the centre of the segments, but in the lower central lobe somewhat larger. With this were shown three others, named *Charm*, *Startler*, and *Special*, varieties of similar character, but differing in the size and intensity of the spots. The plants are of moderately free habit, rather diminished in size by admixture with the smaller parent.

OURISTIA PEARCII.—Messrs. Veitch & Son [F.C.C.].—A showy herbaceous perennial, with the general features of the pretty *O. coccinea* (see Vol. II.), which was now shown with it for comparison. It had dark red stems and leafstalks; the leaves were flatter, more regularly ovate and crenate; and the flowers, which grow similarly on an erect stem, were larger, with a longer tube and more spreading lips. They were crimson, streaked on the face of the limb with deep blood red. The plant was obtained from Chili through Mr. Pearce, after whom it has been named by Dr. Philippi. It quite supersedes *O. coccinea*.

RHODODENDRON PICOTEE ROSEA.—Messrs. Veitch & Son [F.C.C.].—A hardy variety raised at Exeter. The flowers were bright rose in close well-formed trusses, and are richly marked with intense black spots on the three upper segments. A very ornamental plant.

ROSE H.P. LORD MACAULAY.—Mr. W. Paul, Waltham Cross [F.C.C.].—A vigorous-habited *Rose*, with bold foliage and flowers of a velvety crimson in the way of *Général Jacqueminot*, "but brighter in colour, thicker in the petal, and more double." The flowers were full and well formed, and altogether it was regarded as a first-class variety.

SARMENTA REPENS.—Messrs. Veitch & Son [F.C.C.].—A pretty creeping Chilean *Gesnerad*, adapted for basket culture in greenhouses, bearing very pretty-constructed tubular scarlet flowers.

May 27th.

ABIES FIRMA.—Messrs. Veitch & Son [F.C.C. and S.K.].—A fine Japanese conifer, of which healthy young plants a foot high were shown. The leaves of this *Fir* are split at the

point so as to become bifid, and they are unequal in length, set on distichously in three rows on each side of the branchlet, the leaves alternating in the rows.

ACER SP.—Mr. Standish [Com. and B.].—A Japanese tree, with broad-lobed, slender-stalked, palmate leaves, thickly marked with cream-coloured variegation, so that they were more yellow than green. It will make a fine ornamental tree.

ALOCASIA LOWII.—Mr. Bull, Chelsea [F.C.C. and S.K.].—A remarkably fine stove plant, with large broadly arrow-shaped leaves, marked out by white ribs. It will be found noticed at p. 689 of the second volume of these "Proceedings."

ARECA DEALBATA.—Mr. Bull [S.C.C. and S.B.].—A beautiful dwarf Palm, with graceful pinnate leaves, silvery beneath, and composed of numerous long, narrow, acuminate leaflets; the stalks of the leaves or fronds are spiny, and the midrib has tawny spine-like bristles scattered along its upper surface.

ATHYRIUM FILIX-FEMINA var. *APPLEBYANUM*.—Mr. Ivery, Dorking [Com. and B.].—A very interesting garden sport of the Lady-Fern, the fronds of which showed the peculiarities of *Frizelliae* and *Fieldiae* about equally balanced, and were in addition multifoldly forked at the end.

ATHYRIUM FILIX-FEMINA var. *DIFFISSUM*.—Mr. Bull [Com. and B.].—A pretty form of Lady-Fern in which the fronds are very much dissected.

CLEMATIS FLORIDA var. *STANDISHII*.—Mr. Standish [S.C.C. and S.B.].—The fine deep violet-coloured Japanese Clematis already noticed above.

CLEMATIS FORTUNEI.—Mr. Standish, Ascot [F.C.C. and S.K.].—This fine and remarkable double-flowered Japanese Clematis, with white blossoms and unguiculate sepals, had already obtained an award at one of the ordinary meetings of the Committee, and is noticed at p. 113. It was the best of the novelties now exhibited.

DENDROBIUM PARISHII.—Messrs. Low & Co., Clapton [F.C.C. and S.K.].—A very showy epiphyte with thick deflexed stems, bearing a profusion of bright clear rosy-mauve flowers, whose fringed lip is marked on each side with a dark crimson purple blotch, the centre portion being of the same colour as the sepals and petals. The flowers appear to grow in pairs, but in the plant exhibited one only on each peduncle was developed.

DIEFFENBACHIA VERSCHAFFELTII.—M. A. Verschaffelt, Ghent [Com. and B.].—A Brazilian plant, having a distinct erect green-ringed stem like *D. seguina*, and erect ovate-oblong leaves, which are green, with a few irregular white blotches; the stalks and thick midribs are white and ivory-like, and are brought distinctly into view by their erect position. It is a desirable stove herb.

DRACOPHYLLUM SP.—Messrs. Veitch & Son, Exeter and Chelsea [S.C.C. and S.B.].—A greenhouse evergreen shrub of very desirable habit, introduced from King George's Sound, and bearing compact heads of white flowers.

ERANTHEMUM (? SP.).—Messrs. Veitch & Son [S.C.C. and S.B.].—A beautiful low-growing stove herb with the habit of *E. leuconeurum*, the stems branching and spreading, each branch bearing a few obtuse oval leaves, which are dark green so thickly veined with pink that the name of *rubronervium* has been suggested. The plant was showing blossom, the flowering stems being 3 or 4 inches high, terminated by a spike in which the imbricated quadrifarious bracts gave some resemblance to a wheat-ear.

EUONYMUS OVATUS *AUREO-VARIEGATUS*.—Mr. Bull [Com. and B.].—A handsome evergreen shrub with dark green oblong obtuse leaves having a shining surface, and marked in the centre with a blotch of bright golden yellow.

LASTREA MONTANA var. *CRISTATA*.—Mr. Williams, Holloway [Com. and B.].—A pretty hardy Fern, in which the fronds and pinnae are crested at the tips, and the pinnules become somewhat crispy. It is a rare variety.

MICONIA ? *ARGYRONEURA*.—Messrs. Veitch & Son [S.C.C. and S.B.].—A bold-habited stove shrub introduced from Peru, and furnished with elliptic, rugose, dark green leaves marked by a broad central silvery bar, the terete stem and the surface of the leaves hairy. It is very beautiful in the state of young plants, in which it was chiefly exhibited, and is likely to be a useful decorative plant of moderate growth.

ODONTOGLOSSUM URO-SKINNRII.—Mr. Penny, gardener to H. H. Gibbs, Esq., St. Dunstan's, Regent's Park [Com. and B.].—A rare species with large compressed pseudobulbs, long lorate leaves, and an upright raceme of olive-brown blotched green flowers, having a large cordate white lip thickly spotted with dots of pale lilac pink.

PANDANUS ELEGANTISSIMUS.—Mr. Bull, Messrs. Veitch & Son, and Mr. Young [S.C.C. and S.B.].—An elegant form of Screw Pine from the Mauritius, having narrow arching leaves, the keel and margins of which are bordered by red spiny serratures. It is a very graceful plant, already noticed at p. 108.

PELARGONIUM ARTIST.—G. W. Hoyle, Esq. [F.C.C.].—A fine variety approaching *Diadem* in character, but more rosy and less purple. It is also of excellent form and good habit, and a free-blooming sort. The colour is deep rose on the lower petals, slightly spotted; dark maroon with a rosy edge on the upper, the throat white. It is quite a first-class flower.

PÆLARGONIUM DIADEM.—G. W. Hoyle, Esq., Reading [F.C.C.].—A large showy variety of free habit, the flowers of excellent form and of a very distinct and pleasing rosy purple colour on the lower petals, where it is somewhat spotted, the upper ones being dark maroon with a rosy purple edge, and the throat clear. It is quite an acquisition.

PÆLARGONIUM PENELOPE.—G. W. Hoyle, Esq. [Com.].—A flower of good substance, but slightly crumpled in the upper petals, which are of a dark maroon with rosy edge; the throat clear, the lower petals spotted and mottled with maroon.

PÆLARGONIUM PRINCE OF WALES.—W. Beck, Esq. [S.C.C.].—A large and effective flower, with the lower petals bright crimson marbled with maroon, the upper ones bright maroon with a broad edge of crimson, and the throat clear white.

PÆLARGONIUM PRINCESS OF WALES.—W. Beck, Esq., Isleworth [S.C.C.].—A very effective variety, for which, in great measure, the award was made. The lower petals were marbled with bright maroon on a crimson ground, and the upper ones were of a very dark maroon, these colours being set off by a bright clear throat. It was a very pleasing flower.

PÆLARGONIUM THE PRINCE.—G. W. Hoyle, Esq. [Com.].—This variety was commended for its showy colour. The lower petals were orange red, the upper ones light maroon, the throat light shaded with purple.

PETUNIA VERNON.—Mr. Bull [Com.].—A free-blooming sort of showy character, the colour being a veined mulberry purple on a pale lilac ground.

PHALÆNOPSIS INTERMEDIA.—Messrs. Veitch & Son [S.C.C. and S.B.].—This was shown under the garden name of *P. Lobbiai*. It is a pretty epiphyte, with oblong-oval leaves and medium-sized white flowers, having a pale purplish lip, acuminate at the point, and then split into two thread-like divisions or cirrhi. It is not equal to other species in cultivation.

RHODODENDRON SESTERIANUM.—Messrs. Veitch & Son [F.C.C.].—A fine white hybrid between *R. Gibsoni* and *Edgeworthii* noticed at p. 245 of the second volume of "Proceedings." The plant was more bushy-habited than when formerly shown.

SPIRÆA SP.—Messrs. Veitch & Son [S.C.C. and S.B.].—A dwarf bushy-habited shrub with sessile-ovate, irregularly-serrated, wavy leaves, and small compact corymbs of bright rose flowers, which assume a pinkish hue from the presence of long projecting white stamens.

WEIGELA ROSEA ALBA.—Mr. Standish [Com. and B.].—A Japanese shrub with pale green leaves and pure white flowers. It resembles the Weigelas already in our gardens in all but the colour of the flowers; and as it is, no doubt, as hardy as they, will be a most valuable addition to the shrubbery from the profusion of its snow-white blossoms. The plant shown was as yet but small.

YUCCA LINEATA LUTEA.—Mr. Bull [S.C.C. and S.B.].—A very handsome striped-leaved Mexican Adam's Needle, the leaves glossy with dark green margins and clear yellow centre.

THE METROPOLITAN EXHIBITIONS.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, June 3rd.—Take the exhibitors of stove and greenhouse plants that were at the Crystal Palace, and at South Kensington, and you have the positions in regard to the same at this Show. I do not think there was scarcely any change in the varieties perceptible, but I do think they had improved in flower—they were at their best. The beauty and attractiveness of these huge plants always seem to me to culminate at the June Show at the Regent's Park. Mr. B. Peed and Mr. J. Green were first and second with their respective divisions; and in the Nurserymen's Class, Messrs. J. & J. Fraser were first, and Mr. O. Rhodes, of Sydenham, second.

In the Class for twenty Orchids, Mr. G. Baker, gardener to A. Bassett, Esq., Stamford Hill, took the first prize, defeating Mr. Milford, gardener to E. McMorland, Esq., of Hampstead, who was first with this number at the last meeting of the Horticultural Society, and who was now placed second. Mr. Baker had among his group good specimens of *Tricopilia crispa* and *T. coccinea*, *Cattleya Mossiæ* and *C. Mossiæ superba*, *Oncidium ampliatum major*, *Phalænopsis grandiflora*, *Cypripedium barbatum superbum*, three or four varieties of *Ærides*, *Vanda suavis*, and *Saccolabium curvifolium*. Mr. Milford had *Cattleya Mossiæ*, *C. aurantiaca*, and *C. Mossiæ speciosissima*, *Cypripedium villosum* and *C. barbatum superbum*, *Phalænopsis grandiflora*, *Odontoglossum*, *Phalænopsis*, *Vanda tricolor*, *Lælia purpurata*, and some beautiful varieties of *Ærides*. Third prize, Mr. B. Peed. With twelve varieties, Mr. C. Penny, gardener to H. H. Gibbs, Esq., Regent's Park, was first; second, Mr. T. Page, gardener to W. Leaf, Esq., Streatham; and third, Mr. J. Green, gardener to Sir E. Antrobus, Cheam. Eight varieties were shown by Nurserymen. Mr. S. Woolley, of Cheshunt, was first, having no other competitor to dispute the honours of possession with him. With six plants, Mr. Wiggins, gardener to W. Beck, Esq., Isleworth, was first, having some capital plants of *Ærides Fieldingi*, *Cattleya Mossiæ*, *Oncidium lanaceum*, *Ærides crispum*, *A. Larpentæ*, and *Saccolabium guttatum*. Second, Mr. J. Smith, The Gardens, Syon House, having

Oncidium ampliatus majus, *Lælia purpurata*, *Phalaenopsis grandiflora*, *Dendrobium nobile*, *Cattleya Mossiae*, and *Cypripedium venustum*; third, Mr. J. Wheeler, gardener to J. Philpott, Esq., Stamford Hill.

Close to the Orchids were the Fuchsias that appeared for the first time this season. Those that were staged gave promise of plenty of bloom, but very few of the flowers in some cases were expanded. The exhibitors still adhere to the two or three-year-old plants that are generally seen, and have not yet attempted to adopt the suggestion that has been made, that plants struck from cuttings in the end of the summer should be grown on for specimens for exhibition the following year. Mr. Gardiner, gardener to J. Sutton, Esq., Clapham Park, was placed first, having good plants of Prince of Prussia, Prince Imperial, and Count Cavour, dark varieties; Fair Oriana and Rose of Castille, light kinds; and the white-corolla'd variety Madame Cornelissen. Second, Mr. Cannell, gardener to J. Jennings, Esq., Clapham, having Criterion and Prince of Orange, dark varieties; Prince Alfred, Guiding Star, and Annie, light kinds; and Madame Cornelissen. Mr. Young, gardener to R. Barclay, Esq., Highgate, was third.

Some beautiful *Calceolarias* were staged by Mr. James, gardener to W. F. Watson, Esq., Isleworth, of his own strain. Their dwarfness, combined with the size of the flowers and richness of the colours, commend them to myself as one of the best strains of *Calceolarias* I have yet seen.

Exotic and British Ferns were present, relieving the glare of the Show with their quiet drapery of emerald. With twelve plants of the former, Messrs. A. Henderson & Co., Pine Apple Place, were first; and Mr. H. Lavey, second. With British Ferns, Messrs. Ivery and Son, of Dorking, received a Silver Medal for seventy plants; and the first prize in this Class for twelve kinds. Miss Clarkson, of Avenue Road, was second.

Pelargoniums formed a most conspicuous centre to the Exhibition; and now that the *Azaleas* have decreased in quantity, they were the most striking feature of the Show. Mr. Turner, in the Nurserymen's Class with twelve varieties, and Mr. Bailey, of Shardeloes, in the Amateurs' Class with ten varieties, were first. Mr. Turner had famous plants of *Fairest* of the Fair, *Ariel*, *Rose Celestial*, *Leviathan*, *Guillaume Severyns*, *Desdemona*, *Candidate*, *Lady Canning*, *Viola*, *Lord Taunton*, *Nestor*, and *Symmetry*. Mr. Bailey had *Sir C. Campbell*, *Monarch*, *Glowworm*, *Spotted Gem*, and *Lord Clyde*, differing from Mr. Turner's varieties. Messrs. J. & J. Fraser were second to Mr. Turner; and Mr. Shrimpton, gardener to A. Doxat, Esq., Putney, occupied the same position in regard to Mr. Bailey. The former had, differing from the foregoing, *Peacock*, *Prince of Wales*, *Carlos*, *Bacchus*, *Saracen*, *Mr. Marnock*, *Osiris*, *Etna*, and *Madame Leroy*, like *Guillaume Severyns*, a French kind, but by no means adapted for exhibition with the English kinds. A large number of *Fancy Pelargoniums* were staged, and it was a subject of general remark how exceedingly good they were. Mr. Turner and Mr. Bailey were again first in their classes, the first-named having beautiful plants of *Delicatum*, *Lady Craven*, *Ellen Beck*, *Cloth of Silver*, *Roi des Fantaisies*, and *Clemanthé*. Mr. Bailey had capital plants of *Crystal Beauty*, *Lady Craven*, *Acme*, *Negro*, *Clemanthé*, and *Madame Rougère*. Messrs. Fraser were second to Mr. Turner with *Acme*, *Bridesmaid*, *Madame Rougère*, *Cloth of Silver*, *Rosabella*, and *Delicatum*.

Cape Heaths were still in prime condition, the beautiful waxy properties of the flowers seem to have been developed since they were last seen. Messrs. T. Jackson & Sons, of Kingston, and Mr. B. Peed, were severally first in their classes; and in the Open Class for six species, Mr. H. Chilman was first. The second prizes in the Classes for ten, eight, and six varieties were awarded to Messrs. O. Rhodes, T. Page, and J. Wheeler.

Roses, too, were still remarkably fine, and loaded with magnificent trusses of flower. Messrs. W. Paul, and H. Lane & Son were the only exhibitors of ten varieties, and after a most patient investigation the Judges awarded Mr. Paul the first prize. His varieties were—of *Hybrid Perpetuals*, *Jules Margottin*, *Louise Odier*, *Auguste Micé*, *La Reine*, and *Lord Raglan*; *Hybrid Chinas*, *Juno* and *Chénérolé*; *Hybrid Bourbon*, *Paul Ricaut*; *Tea*, *President*, a glorious specimen; and *Madame Willermoz*. Messrs. H. Lane & Son had *Hybrid Perpetuals*, *Baronne Prevost*, *Général Jacqueminot*, and *Lælia*, the last a grand specimen; *Hybrid Bourbons*, *Charles Lawson*, *Chénérolé*, *Elise Macroeur*, and *Paul Perras*; *China*, *Blairii* No. 2; and *Noisette*, *Miss Glegg*. In the Amateur's Class the only exhibitor was Mr. Terry, gardener to W. G. Puller, Esq., Youngsbury, having, *Hybrid Perpetuals*, *Duchess of Sutherland* and *Baronne Prevost*; *H. C.*, *Paul Ricaut*; *H.B.*, *Charles Lawson*; and *Teas*, *Sylph* and *Goubault*. A large quantity of cut Roses were staged. Messrs. Paul & Son, Mr. J. Mitchell, of Maresfield, and Mr. W. Paul, had the best of fifty varieties; while on the part of the Amateur growers, Mr. J. Hollingworth, of Maidstone, had the best; and Mr. Terry ranked second. With twenty-four varieties, Mr. Turner was first, and Messrs. Paul & Son second. They were in good condition, and seemed an earnest of sharp competition at the coming Rose Show at the Crystal Palace, and at the Horticultural Society, where they shall have an extended notice.

The best stand of thirty-six Pansies came from Mr. H. Hooper, of Bath, and Messrs.

Downie, Laird, & Laing were second. In the Amateurs' Class for twenty-four blooms, Mr. Howse, of Chalvey, was first, and Mr. August, of Beddington, second. Messrs. Downie and Co., Hooper, and Shenton, had Fancy Pansies; the former again produced some of their seedlings—viz., Sulphur Queen, Maccaroni, Mrs. Nethercote, Earl of Rosslyn, Golden Lion, and H. O. Nethercote.

A group of six specimen Azaleas came from Mr. Turner, scarcely inferior to any he has produced before this season; they were Juliana, Extranis, Chelsoni, Glory of Sunninghill, Iveryana, and Criterion: these were awarded first prize. Second, Messrs. J. & J. Fraser, with plants much inferior to these. The same from Amateurs were poor, and in some cases had almost shed their flowers. Mr. C. Penny was first with six kinds, and Mr. J. Green second.

In the Miscellaneous Class were stands of cut Verbenas from Mr. C. J. Perry, Castle Bromwich, Birmingham; and Mr. Turner, Slough. The former had some glorious trusses of Ruby King, bright ruby red; Sylph, a soft flesh colour suffused with carmine, and having a lemon eye; Fairy, marbled crimson and white; L'Avenir de Bellant, rose with deep carmine centre (the variety lately shown as Rugby Hero very closely resembles this); Annihilator, bright rosy crimson with white eye; Nemesis, bright orange scarlet; Firefly; Mrs. Moore; and some ten varieties of seedlings of excellent properties that will be sent out in the ensuing spring. Mr. Turner had Le Grand Boule de Neige, a good pure white flower; Conor, bright scarlet; Mr. S. Newton and Spot, two very bright flowers, the latter having a conspicuous white eye; Pauline; Magnificent; &c.

Several First-class Certificates were awarded to new and rare plants, and for seedling florists' flowers. The most interesting subjects were Erica Exquisita from Messrs. H. Low and Co., Clapton, having large tubular flowers of deep salmon red, and dark ring at the mouth of the flower; Rhynchospermum jasminoides variegatus from Japan, the leaves being edged and blotched with cream colour, exhibited by Messrs. A. Henderson & Co.; Pelargonium Artist, Diadem, and Penelope, from G. H. Hoyle, Esq., Reading; Excelsior, from Mr. Wiggins, gardener to W. Beck, Esq., Isleworth; and Jewess, a rich dark flower with white throat, of fine form, and very free, from Mr. Nye, gardener to E. Foster, Esq., Clewer, Windsor; Zonale Geranium Dr. Lindley, from Mr. W. Bull, of Chelsea, with fine showy scarlet flowers; and Calceolaria Bijou, from Mr. Watson, St. Albans, a dwarf-growing dark variety, with a profusion of flowers. The same award was also made to Messrs. Veitch and Co., and Mr. W. Bull, for varieties of new and rare stove plants. Second-class Certificates were awarded to Mr. G. Smith, of Islington, for Pelargonium Queen Bertha, light, heavily pencilled with crimson, dark top petals, a large and showy flower; to Mr. Halley, Blackheath, for Zonale Geranium Adonis, of dwarf close habit, with large trusses of bright scarlet flowers on erect footstalks, a telling bedding variety; to Mr. Wiggins for Pelargonium Prince of Wales, Princess of Wales, Maid of Honour, and Hero; to Mr. Nye for Asteroid, a rich dark flower of medium size; and to Mr. Holland, gardener to R. Peake, Esq., Spring Grove, Hounslow, for Petunia Duchess of Northumberland, a single variety, white ground, with bars of magenta rose, well adapted for pot-culture.

Of new Pelargoniums Mr. Turner had Lord Eversley, a rich and showy dark flower; First Quality, rosy carmine, with dark top petals and white throat, a flower of fine form; and Titijens, glowing rose, with dark top petals, and white throat, a large and striking flower, but wanting form. Mr. Wiggins had Scarlet Nonpareil, bright glowing scarlet; and Vermilion Spot, bright vermillion with dark spots, a small flower but remarkably striking.

Messrs. E. G. Henderson & Son had examples of *Amaranthus melancholicus ruber*, *Perilla nankinensis*, *Coleus Verschaffelti*, and *C. atro-purpurea*, or *nigricans*, a bronze and crimson-foliaged plant, of good habit, and said to be well adapted for bedding purposes. The same had baskets of Variegated Geraniums; the best were, Mrs. Pollock, The Countess, Sunset, and Italia unita; the former the best of all. They also had some seedling Gloxinias of great beauty.

A small show of some excellent fruit was staged in the covered way leading to the Rhododendron-tent. Mr. W. Jackson, gardener to Lord Scarsdale, Kedleston, was first with a fine fruit of Providence Pine, weighing 8½ lbs.; second, Mr. T. Bailey, Shardeloes, weight 8½ lbs.; third, Mr. Young, gardener to C. Bailey, Esq., Aberdare, weight 9 lbs. 3 ozs. With a fruit of Queen Pine, Mr. Horwood, gardener to G. Turnbull, Esq., Bromley, was first, his fruit weighing 4 lbs.; second, Mr. S. Solomon, Finchley; and third, Mr. J. Barnes, gardener to Lady Rolle, Bicton, Devon, weight 4 lbs. With a single fruit of any other sort, Mr. Rogers produced an Enville Pine. Mr. W. Jackson also had six fruits of Providence that were remarkably fine.

Melons, as usual, were plentifully produced, of both Scarlet and Green-fleshed kinds, Turner's Gem predominating in the former Class. In the Class for Green-fleshed kinds, Mr. Meredith, a hybrid Persian variety with very thin skin. The best in this Class was Golden Perfection.

With a dish of Black Hamburgh Grapes, Mr. Clements, of East Barnet, was first; equal second, Mr. Petch, and Mr. Turner of Slough. With a single dish of other Black kinds, Mr.

W. Hill, of Keele Hall, had Black Prince; Mr. O. Goldsmid the same—they being placed first and second. In the Class for White Muscadine, or Sweetwater, Mr. W. Hill was first with Buckland Sweetwater; second, Mr. Hutt, gardener to Miss B. Coutts, with White Muscadine. With Frontignans, or Chasselas Musqué, Mr. Petch was first with the former; equal second, Mr. Drewitt, The Donbies, Dorking, and Mr. Euston, with Frontignans. Of any other kinds but the foregoing, there were Golden Hamburgs from Mr. Macpherson, and Muscats of Alexandria from Messrs. Turner and Clements; the two last-named being first and second.

Peaches, Nectarines, Cherries, and Strawberries were extremely good. Of the latter Mr. Turner was first with glorious fruit of President and Oscar; second, Mr. J. Pottle with British Queen and Rifleman. Of others there were Victoria, Comte de Paris, and Alice Maud.

Some new Cucumbers were staged; and, judging from their appearance, they seem to possess more than ordinary merit. A brace of a good-looking fruit named "William Brough" came from George Child, Esq., York Lodge, Upper Norwood, a hybrid black-spined variety, said to be well adapted for early forcing purposes; and from Mr. Aylott, four fruit of "Emperor," a handsome black-spined kind; they both looked just the thing for table use.

In the Miscellaneous Class I omitted to mention two splendid specimens of the Madagascar Lattice Plants from Messrs. T. Jackson & Son, of Kingston—*Ovandra fenestralis* and *O. Berneriana*. From the same exhibitors came the singular New Holland Pitcher-plant, *Cephalotus follicularis*.

ROYAL HORTICULTURAL SOCIETY, June 17th.—Two long lines of plants and flowers faced each other along two-thirds of the length of the nave of the Exhibition building, having a good width of passage between. There they were, like the opposing forces drawn up in battle array; or, as if Majesty had to pass that way, and the avenue had been cleared for that purpose.

I was much struck with the splendid collection of Orchids staged by Mr. Milford, gardener to E. McMorland, Esq., Hampstead, who was first with twenty varieties. I lingered about this group as the most attractive feature in the whole Exhibition, and had the peculiar points of interest about the collection showed to me by Mr. McMorland's intelligent gardener. And here a word of praise is due to the admirable manner in which these plants are always named. I wish some of the other exhibitors would learn a necessary lesson here, were it only for the sake of some of us who have to take down the names of their productions for publication. Mr. Milford had a splendid pan of *Cypripedium villosum*, *C. barbatum*, and *C. grandiflorum*; *Vanda tricolor*, a beautiful variety; *Vanda Batemani*, just opening, having a spike of twenty-one flower-buds; and *V. Roxburghii cœrulea*; *Ærides odoratum*, A. Lobbi, A. Fieldingii, A. Schroederi, and A. maculosum; *Phalenopsis grandiflora*; *Anguloa Clowesii*; a grand *Lælia purpurata*; *Cattleya* species, and *C. lobata*; *Brassavola Digbyana*; *Odontoglossum*; *Phalenopsis*; *Barkeria melanocaulon*, and *Saccolabium guttatum*. Second, Mr. G. Baker, gardener to E. Bassett, Esq., Stamford Hill; third, Mr. T. Page, gardener to W. Leaf, Esq., Streatham. With eight varieties, Mr. C. Penny, gardener to H. Gibbs, Esq., Regent's Park, was first, having a splendid *Cattleya Mossiae*, *Phalenopsis grandiflora*, *Orchis foliosa*, *Dendrobium Parishii*, *Saccolabium guttatum* Holfordi, &c.; second, Mr. S. Green, gardener to Sir E. Antrobus, Cheam. With six varieties, Mr. Lovell, gardener to H. Gurney, Esq., Nutfield, was first, having *Epidendrum cranifolium*, *Ærides odoratum majus*, *Saccolabium guttatum*, *S. Blumei major*, *Brassia verrucosa*, and a grand *Cattleya Mossiae*. Second, Mr. Wiggins, gardener to W. Beck, Esq., Isleworth.

With fifteen Stove and Greenhouse Plants, Mr. Whitebread, gardener to H. Colyer, Esq., Dartford, was first, with a fine collection, consisting of *Ixoras coccinea* and *javanica*, *Erica Cavendishii*, *E. miniata splendens*, *Polygala Dalmasiana*, *Rondeletia speciosa*, *Dipladenia crassinoda*, a magnificent *Pleroma elegans*, *Vinca alba rosea*, *Azalea Barclayana*, *Pimelea mirabilis*, and *Allamanda grandiflora*; second, Mr. B. Peed. With collections of nine varieties, Mr. Chilman, gardener to Mrs. Smith, Epsom, was first; and Mr. T. Page, Streatham, second. In the Class for six varieties, the first prize was very properly withheld; Mr. Tegg, gardener to Baron Hambro, Roehampton, being second. There was some spirited competition between Mr. W. Cole, of Withington, near Manchester, who had exhibited at Oxford on the previous day, and Messrs. Fraser, Lea Bridge Road, in the Class for twelve varieties. These two collections, side by side, were one of the most attractive features of the Show. Mr. Cole was placed first, having *Aphelaxis humilis grandiflora* and *macrantha rosea*, *Ixora alba*, *I. javanica*, *Phanocoma proliferum*, *Erica Cavendishii*, *E. miniata splendens*, *E. Massoni*, *Azalea Juliana*, *A. Criterion*, and *Pimelea mirabilis*. Messrs. Fraser had, among others, *Prostanthera lasiantha*, *Pimelea diosmeifolia*, *Kalmia Angelina*, *Statice imbricata*, *Phanocoma proliferum*, *Stephanotis floribunda*, and *Ærides Lindleyanum*. Fine-foliaged plants came from Mr. May, gardener to T. B. Butt, Esq., Cheltenham, who was first; and Mr. Smith, of Syon House, second. Messrs. A. Henderson and Co. and J. & C. Lee were equal third.

Azaleas, in the Amateurs' Class, were very poor. In the Class for six new kinds sent out since 1858, Messrs. Ivery & Son, Dorking, were the only exhibitors, having *F. H. Von Weldeck*, bright red; *Leopold I.*, rosy purple; *Duc de Brabant*, a salmon rose double variety; *Variegata superba*; *Etoile du Gand*, variegated; and *Striata floribunda*, white striped with carmine.

Roses in pots were past their best, yet they were brighter than could have been expected. Mr. Terry, gardener to W. G. Puller, Esq., Youngsbury, was first, having Paul Ricaut, Paul Perras, Juno, Great Western, Coupo d'Hébé, and *Tea Mutabilis*. With twelve varieties, Mr. E. T. Francis, of Hertford, was first, having *Hybrid Bourbons*, Charles Lawson, Coupo d'Hébé, Paul Perras, Chénédolé, and Juno; *Hybrid Perpetuals*, Auberson, Baronne Prevost, Jules Margottin, Madame H. Jacquin, and Général Jacqueminot; *Tea-scented*, Madame Willermoz, and Viscomtesse de Cazes. Second, Mr. William Paul, Waltham Cross.

The Class for six Dracenas or Cordylines brought two competitors—Messrs. T. Jackson and Son, Kingston, who were first, having *D. terminalis*, *D. ferrea*, *D. Rumphii*, *D. indivisa*, and *C. heliconifolia*, and *C. australis*. Mr. Bull was second, having two groups, the best containing *D. arborea*, *D. indivisa*, *D. spectabilis*, *D. australis*, *D. congesta*, and *D. Draco*.

With six Cape Heaths, Messrs. T. Jackson & Son and B. Peed competed. The latter was first, having good plants of *Massonii*, *Tricolor flammea*, *Mutabilis*, *Tricolor impressa*, *Depressa*, and *Eximia superba*. The former had *Bergiana*, *Depressa*, *Candolleana*, *Nobilis*, *Ventricosa major*, and *Tricolor impressa*.

The glare of the Show centred in the Pelargoniums. On this occasion Mr. Nye, gardener to E. Foster, Esq., Clewer Manor, was first, with nine plants, the high-coloured flowers being unusually bright, having *Etna*, *Ariel*, *Rose Celestial*, *Sanspareil*, *Desdemona*, *Viola*, *Fairest of the Fair*, *Lord Clyde*, and *Perdita*; second, Mr. Shrimpton, gardener to A. Doxat, Esq., Putney Heath. With twelve kinds, Mr. Turner was first, having *Beauty of Reading*, *Ariel*, *Lord Clyde* (splendidly coloured), *Viola* (an immense plant, a mountain of flower), *Lady Canning*, *Fairest of the Fair*, *Pizarro*, *Bacchus*, *Modesty*, *Flora*, *Prince of Prussia* (Storey's), and *Nestor*; second, Messrs. Fraser. With six Spotted kinds, Mr. Turner was again first, having *Spotted Gem*, Mr. Marnock, *Osiris*, *Rembrandt*, *Guillaume Severyns*, and *William Bull*; second, Messrs. Fraser, with *Excelsior*, *Bracelet*, Mr. Marnock, *Madame Furtado*, *Sanspareil*, and *Mazeppa*. With six Fancy kinds, Messrs. Fraser were first, having *Lady Craven*, *Delicatum*, *Clara Novello*, *Roi des Fantaisies*, *Claudiana*, and *Bridesmaid*; second, Mr. Turner.

Collections of exotic Ferns were staged by Mr. W. Bull, and Messrs. A. Henderson and Co.; the former also had a collection of *Anectochilus*. British Ferns were staged by Messrs. Ivery & Son, mostly varieties of the *Lady-Fern*. Some of these were very beautiful.

Cut Roses, in collections, were staged by Mr. C. Turner, who was first; and Mr. J. Mitchell, Mansfield, Sussex, and Messrs. Paul & Son, Cheshunt, who were equal second.

In the Miscellaneous Class were Pansies, both English and Fancy, from Messrs. Bragg, of Slough; Hooper, of Bath; and Downie, Laird, & Laing, Edinburgh. The latter had some famous named flowers of the latter, including *Princess Mathilde*, *Princess Alice*, *Noemy Demay*, *Belle Lilleoise*, *Ali Bey*, and *Parpailot*, were very showy. Some seedlings were also shown by Messrs. Downie & Co., among which was one evidently a seedling from *Miracle*, a large delicate blush flower, with large dark blotch rayed with bright rose and blue. I was particularly pleased with this, and believe it will become a favourite. Mr. Bragg had some seedlings in pots that were commended—viz., *Harlequin*, a light-ground flower with deep lilac border, and large dark blotch rayed with pale purple. This was the best flower in the whole lot. *Dazzle*, a yellow-ground flower, border of fiery bronze, and large dark blotch; and *Bob Ridley*, yellow ground with deep lilac border, and dark bronzy blotch. A Fancy Pansy, from E. J. Lowe, Esq., of Beeston, was also commended. It was named *Pallas*, a large yellow-ground flower edged with deep glossy purple; the lower petals had a narrow margin of bright bronze, large dark blotch.

Collections of cut Pæonies came from Messrs. Paul & Son; Salter, of Hammersmith; and J. & J. Fraser. Mr. Bragg had a collection of Hunt's Sweet Williams, a splendid strain of this favourite flower. From Mr. Turner was a box of beautiful blooms of Pinks; and if any of the readers of the *FLORIST AND POMOLOGIST* are anxious to obtain a few good flowers, let them accept the following as worthy of their attention:—*Pride of Colchester*, Constance, Blondin, Mrs. Turner, Sarah, Charles Turner, Mr. Smith, Dimo, and Nina. From Mr. Turner also came some good cut Verbenas, among which were *Lord Craven* (fine purple), *Ruby King*, *Annihilator*, *Lord Leigh*, and *Firefly*. From three of the Covent-Garden houses—viz., Messrs. Hooper & Co., Butler & McCulloch, and Barr & Sugden, came collections of *Ixias* and *Sparaxis*, *Lilies*, *Tritonias*, *Gladiolus*, *Anthoriza coccinea* and *roseum*, &c.; the former especially were very pretty indeed, and attracted considerable attention. These had been received from the growers in Guernsey. There were also collections of Spanish Iris staged by each, in great variety, received from Holland.

(To be continued.)

Quo.

CALENDAR OF OPERATIONS.

CONSERVATORY.

SHADE for a few hours in the middle of the day whilst the hot weather we have at present continues, and pay the greatest attention to the watering of all plants. Always give sufficient water to go through the whole of the soil. If the soil in any of the pots has by any chance got too dry, take and immerse the pots in a cistern of water until the soil has got well moistened. Syringe daily all plants not in flower. Too much air cannot be given both by day and night. Keep no more plants here at present than are requisite to make the house look gay. Attend to climbers. Keep everything clean.

GREENHOUSES.

HARDWOODED PLANTS.—Attend to the shading of plants in flower: also to the watering. Give plenty of air both by day and night, especially the latter. Shift all plants that are growing vigorously, and that have filled their pots with roots. In very dry hot weather it will be necessary to shade, and they should be kept rather close with a moist atmosphere until they make fresh roots. Attend regularly to the stopping, thinning, and tying-out of the plants. Attend to the specimen plants of Azaleas. Shift any that may require it. Look well after thrips, and fumigate on their first appearance. All plants done growing should have all the sun and air possible to ripen their wood.

SOFTWOODED PLANTS.—*Pelargoniums*.—The plants cut down last month will now be pushing again. The soil should be shaken from them, and they should be potted in smaller pots, using a light compost; they should then be put into a pit or frame, and kept close and moist to encourage fresh growth. As soon as the later-flowering plants are out of flower, they should be set out of doors for a few days, and then cut down, and afterwards treated like the early-flowering plants. Pot off the cuttings when fit. *Cinerarias*.—Continue to shift into larger pots seedling plants as they require it. Those that were planted out should now be taken up and potted. *Calceolarias*.—When done flowering remove to a shady border, where they will throw up suckers, which, when large enough, should be taken off for cuttings. Sow seed in light soil, cover slightly, and keep them moist until they vegetate. *Fuchsias*.—Continue to shade plants in flower, and attend well to the watering.

STOVE.

Use manure water freely to all strong-growing plants. Give plenty of air to ripen the wood; but always close up early. Attend well to the young stock, and shift any that may require it. Stop, stake, and tie-out. Syringe freely. Look well after insects; on no account allow them to increase. Keep everything as clean as possible.

FLOWER GARDEN.

The hot dry weather we have had has necessitated much watering here. Attend well to the watering of all plants in vases, baskets, &c. Continue to tie up flower-stems as they require support. Cut-out the decaying stalks of herbaceous plants, and keep the borders as neat as possible. If not already done, plant-out seedling Wallflowers, Sweet Williams, Rockets, Antirrhinums, and all other hardy biennials and perennials into the borders where they are intended to flower next year. Get in a stock of cuttings as soon as possible. Put in cuttings of the different sorts of Geraniums at once. These strike best in a south border fully exposed to the sun. Some silver sand should be put into the openings made to receive the cuttings. This is also a good time to increase the stock of Roses, as cuttings of the young shoots now root freely in a little heat. Sweep and roll the walks, and keep everything in the highest order. *Pleasure Ground*.—Look over choice trees and shrubs, and cut off any strong shoots likely to disfigure the plant. Attend regularly to the mowing of the lawns, and roll frequently gravel walks.

FORCING.

FRUIT.—*Pine Apples*.—Be careful not to overwater all fruit approaching maturity. Give plenty of air in fine weather. The plants bearing fruit for the autumn and

winter supply, should, if possible, be all got together in one house before the end of the month; they can then be better attended to. They should have a nice steady bottom heat of about 85°; they must be well attended to in watering, and a moist atmosphere must be maintained. In cold wet weather fire heat will be necessary, as the night temperature should not get much below 70°. All shifting should be completed at once. A steady bottom heat of from 85° to 90° is the most important thing to be attended to. After shifting, the plants should be kept close, and the atmosphere moist, until they begin to root freely into the fresh soil; they should then have liberal supplies of water, and an abundance of air in fine weather, always giving it early in the forenoon, and closing up early in the afternoon. *Pines*.—Remove the sashes off the early house, and whilst off have them well cleaned and painted if they require it; they will then be in readiness when wanted in the autumn. In dry hot weather too much air cannot be given to ripe or ripening Grapes. In late houses a moist growing temperature must be maintained. Little or no fire heat will be required unless any cold wet unseasonable weather should set in. *Peaches and Nectarines*.—The sashes from the early house should be taken off.

When the fruit is gathered in the late houses the trees should be regularly syringed, and air freely admitted in order to ripen the wood. The borders should also be examined, and if dry should have a good soaking of water. *Figs*.—Whilst the second crop of fruit is swelling the trees will require a deal of water, but when it begins to ripen the supply of water should be gradually reduced. The atmosphere must be kept as moist as it can be without injury to the fruit; otherwise it is almost impossible to keep down red spider, especially if the weather be hot, as it often is at this season. *Cherries*.—Towards the end of the month shift any plants that require into larger pots or tubs. *Strawberries*.—Shift at once into their fruiting-pots all those layered last month. Set them in beds in an open situation. They will not require much watering until they begin to root freely into the fresh soil; but they should be kept well syringed in dry weather. *Melons*.—Maintain a steady heat of about 80° at top and bottom, and give plenty of air. Water when necessary until the fruit begins to ripen. *Cucumbers*.—Attend to previous directions. Sow for winter bearing.

HARDY FRUIT.

Attend regularly to the gathering of the fruit as it becomes ripe. Continue to nail-in the shoots of wall trees as they advance, removing all not wanted, and stopping all gross ones. Net Morello Cherries. Mat Gooseberry and Currant bushes. Make new plantations of Strawberries, and dress old ones intended to remain another year. The old Raspberry canes done bearing should be cut away; also all the weak ones of the present season not wanted for next year.

KITCHEN GARDEN.

The long continuance of dry weather we have had has been favourable to the destruction of weeds, but very much against the growth of vegetables. Much watering has been necessary for the different crops; and if we have much hot dry weather this month, as we generally do, a great deal of watering will still be required. Continue to hoe and stir the soil amongst the growing crops. Earth-up Celery as it requires it. *Endive and Lettuce*.—Plant-out large breadths, especially of the former. Sow Hardy Hammersmith and Black-seeded Bath Cos Lettuce to stand over the winter. *Prickly Spinach*.—Sow the first week for the main winter crop. *Cabbages of sorts*.—Sow at once for spring use. *Cauliflowers*.—Sow about the 12th, and again the 22nd, to be transplanted into a frame or under hand-lights, and to be protected from frosts during the winter. *Tripoli Onions*.—Sow the first week to stand over the winter. *Parsley*.—Thin-out well so as to get good curled leaves. *Tomatoes and Gourds*.—Look over and thin-out the shoots. *Spare Ground*.—Sow with Turnips. *Herbs*.—Collect as they come into flower, dry, and store away.—M. S.



Mrs. William Paul Rose

MRS. WILLIAM PAUL ROSE.

WITH AN ILLUSTRATION.

It is now somewhere about twenty-five years since Hybrid Perpetual Roses first made their appearance; and, if they are not yet in full meridian splendour, they are already far in advance of all the favourites of ancient days. The Moss, the French, the Damask, the Hybrid Chinese, the Bourbon, the Tea-scented, are still valuable from various points of view; but the Hybrid Perpetuals are conspicuous everywhere. In form, colour, size, variety, continuity of flower and fragrance, they have gradually improved, the lesser luminaries of the Rose-world growing pale as they advanced till they appear comparatively dim, distant, and inconsequent. Not only are these Roses the chief ornament of our gardens in the summer and autumn months, but they also figure most conspicuously on the tables at our horticultural fêtes.

The subject of our present engraving, MRS. WILLIAM PAUL, was raised by M. Verdier, of the Rue du Marché, aux Chevaux, Paris, one of the oldest and most respectable Rose-growers in France. Mr. William Paul says:—"I first saw this flower as a seedling two years ago under circumstances which fully tested its power of endurance; it was towards the close of a sultry day. The surrounding Roses were withered or blanched; but this, owing to the substance of the petals, was as fresh and beautiful as an opening flower. The sun was sinking in the west, red and rayless behind a thick dark thunder cloud, realising that peculiar light under which flowers have an unusually fervid glow. I cannot describe the colours better than by saying that they were a reflex of that sky red and black (may we say lurid?)—the colours of a thunder cloud illumined by the sun."

This beautiful Rose is above the average in size; and in form, fulness, and vigorous growth is *quite distinct*. We are much mistaken if MRS. WILLIAM PAUL does not prove, at least for exhibition purposes, the best Rose of the present season.

The Hybrid Perpetual Roses appear to thrive equally well as dwarfs or standards. Some few of the most vigorous growers are well adapted for covering walls, arches, and pillars. They delight in a rich strong soil, require close pruning, and can scarcely be manured too highly.

PRESERVING GRAPES.

M. ROSE CHARMEUX, of Thomery (one of the best growers of Chasselas Grapes at Thomery, and son of the celebrated M. Charmeux who improved the Thomery mode of training Vines, now in general use), has contrived within a few years a new way of preserving Grapes, which has succeeded better than any other plan hitherto in use.

Contrive a place in a properly arranged fruit-house. Fasten against the sides a series of small racks with notches in them, similar to those in which wine-glasses are arranged in pantries, and place one above the other at about 12 inches apart. Place in each one of the notches of these racks a small bottle three-quarters full of water, to which must be added a small quantity of powdered charcoal to keep the water sweet.

Gather the Grapes at the usual time, selecting the handsomest and most perfect bunches, and those which have been thinned out. Cut those branches which bear two bunches, and place the lower end of the branch in one of the

bottles. These Grapes must be examined every week, and the imperfect berries taken off with scissors. Chloride of calcium is to be used to absorb the dampness of the atmosphere.

Mr. Rose Charmeux preserves the largest portion of his Chasselas, and even his Frankenthal (Victoria Hamburg) Grapes until the end of April. This method is so successful that the Grapes are as plump and the stems as green as when taken from the Vine.

The following is the plan of Dubreuil for using the chloride of calcium:—Until now the only means used to get rid of the dampness which arises from the fruit in the fruit-room, has been to ventilate it during ten days before closing up the house. This plan has serious objections. In the first place, it causes the temperature of the room to become the same as that of the open air, which often injures the fruit. It also introduces air less charged with carbonic acid, which is quite as objectionable; besides, it is exposed to the light, which hastens its maturity. Besides, this method can only be used in dry weather, and when the temperature is above the freezing-point. Now, as this is seldom the case in winter time, the fruit is consequently subjected to the dampness of the fruit-room.

To overcome this difficulty, we recommend to use chloride of calcium, which must not be confounded with chloride of lime. This comparatively cheap article absorbs nearly double its weight of moisture, and becomes deliquescent after being exposed a short time to the damp air.

In order to make use of the chloride of calcium, make a wooden box lined with lead, 20 inches square and 4 inches deep, which must be raised about 16 inches from the floor, on a small stand inclined a little at one side. In the middle of the inclined side place a spout. This apparatus being placed in the fruit-room, put in it about 3 inches deep of chloride of calcium, very dry and porous. As it melts the liquid runs out through the spout into a stone jar underneath it. If all the chloride of calcium is melted before all the fruit is taken out, you must renew it. About 40 lbs. are sufficient to keep a fruit-room dry, used at three different times.

The liquid which is obtained by this plan should be carefully kept in stone jars and tightly covered until the next fruit season. Then, when the fruit-room is again filled, pour the liquid into an iron pot and evaporate it. It is then again fit for use the next year.

DISEASE IN THE GLADIOLUS.

In many of the largest collections of Gladiolus in the country we have both seen and heard of a disease which has made its appearance in this now favourite flower. The form it takes is that of premature ripening. The foliage becomes pale and gradually dies away without the flower-spike making its appearance. Until this season we have never observed this disposition in the habit of the plant, and we are sanguine in the hope that what has appeared to us and to many others who are interested in the welfare of this fine autumnal flower to be an epidemic disease, will prove to be only a condition induced by the present hot and dry summer. It is only in sharp, light, or dry soils that we have detected it; and the following statement of M. Loise, the extensive cultivator of the Gladiolus at Paris, goes far to confirm the opinion we entertained on the subject.

M. Loise recommends frequent and abundant watering in dry weather if it is desired to have a fine bloom of Gladiolus. "Some people," says he,

'assert that the *Gladiolus* does not require water. I affirm the contrary. I have already acquired the conviction that this plant has need of watering; and I am making an experiment this year, which it appears to me will not leave any doubt on the subject—in fact, I have left a certain number of plants which I water regularly, and an equal number to which I do not give any water, in accordance with the recommendation of many growers. Those which are not watered have already become withered without developing their flower-stem; whilst the others are full of vigour and grow marvellously. I can affirm that in every case the *Gladiolus* requires copious waterings at the time of flowering; their stalk becomes more firm through it, and their flowers open better, and have much larger petals. It is necessary to observe that care must be taken not to allow the water to be thrown on the flowers, because, in some varieties, it is apt to spot them."

This, then, let us trust, is the solution of the *Gladiolus* disease; and that what appears to be a threatened calamity is only a passing condition induced by a want of knowledge of the requirements the plant demands.

H.

THE ROSE SEASON.

THE winter was favourable, but here the spring was dismal. The Manetti Roses were in full bud in February; but alas! the succession of hoar frosts and high winds from that time till June 1st, succeeded by black blight and a crushing hail storm, did me great mischief. To this I owe a fine bloom now (August 11), of these maltreated ones, which in most part have recovered. The Briar summer Roses, which have greater powers of resistance and finer constitutions, never bloomed better. I will begin by recommending some of these latter, which it would be folly to give up.

1. *Summer Roses*.—I name only some of the cream. Boula de Nanteuil, Ohl, Kean, Paul Ricaut, Coupe d'Hébé, La Volupté, Queen of Denmark, William Tell, Schismaker (choise), Napoléon, M. Audot, La Ville de Bruxelles, M. Zoutman, d'Aguesseau, Transon Goubault, Adèle Prévost, Cynthia, Tricolore de Flandre, and Madeline. The two last are variegated and good. These are all fit and useful for show purposes. They have iron constitutions, and are abundant bloomers. There is this superiority of Summer Roses over H.P.'s—viz., you can cut them for bouquets or show without any detriment to future prospects. Paul Ricaut is, I think, the most first-rate. How very few of these Roses have died, or done badly, during the demolitions of the last four years? The best place for them is where they can get heat without the direct rays of the sun—*i.e.*, 3 feet in advance of a wall facing the north.

2. *Exhibitions*.—I have attended none this year; but I am certain that, from the nature of the weather, bad blooms must have been the rule and good ones the exception. The best exhibition is in the garden from 4 to 8 o'clock, A.M.

3. *New Roses of 1862*.—The brood of this year certainly was good. I never knew so many good ones come out in one year. Some of them, however, might be improved by another row of petals in the centre. Till, however, we get novelties on strong and suitable stocks we cannot be quite sure of their greatly relative merits. I shall not err if I class them thus:—

(1). *Extra Choice and A1*.—Maurice Bernhardt, Duc de Rohan, Charles Lefebvre, Prince Camille de Rohan.

(2). *Choice and A1*.—Beauty of Waltham, Madame Boutin, Maréchal Vaillant, François Lacharme.

(3). *Fine Roses fit for Show, but not Choice in Colour, though Good in Colour*.—John Hopper, L'Eblouissante, Madame Charles Wood, Madame Clémence Joigneaux. These are very good-constituted Roses, strong growers, and good bloomers.

(4). *Good Roses*.—Some of these suffered severely from hail, so that I cannot estimate their full value. They are good growers and abundant bloomers. Professor Koch, Mdlle. Julie Daran, Mdlle. Ernest Dréol, Turenne, Vicomte Vigier, Alphonse Damazin, Archevêque de Paris.

(5). *First-rate Full-sized Show Roses, but of Limited Growth and Doubtful Constitution*.—Emile Dulac, Gloire de Chatillon. These have suffered much from hail. They are only fit for first-class lands and favourable situations.

4. *Roses of 1863*.—These have, as yet, done but little. From Mr. Rivers I hear but a poor account of them.

(1). *Sœur des Anges* (twelve plants).—This is a fine grower with fine foliage, which breaks from every eye from the base to the summit of the plant, which is not the case with its parent Duchesse d'Orleans, from which it is a fixed sport. Moreover, its wood is of a firmer character. It forms abundant buds, and is before expansion like its parent. Some of the blooms have been clefty, others hard to open, and others have displayed full-sized blooms of singular beauty. It is a silvery white and delicate blush in the centre. It is choice; and, like its parent, it will be a better bloomer in autumn than summer.

(2). *Alfred de Rougemont*.—This is a superior Rose. It is deep maroon, or purple crimson, of good outline and disposition of petals. The petals are very thick and smooth at the edges. It is perfectly full in the *English* acceptance of the word.

(3). *Duc de Bassano* is clear crimson, not dark as stated. It is good in outline, sufficiently full; its petals are smooth and well arranged; and, being of good substance and thorough colouring, it stands sun well.

(4). *Madame Helye*.—This is, as Bassano, Portemer's production. It is an abundant-blooming, sweet-scented, globular, crimson Rose. The petals are not so substantial as the former, which is a cupped Rose.

(5). *L'Eclatante*.—This is a fine deep velvety crimson, with good smooth petals arranged as a cup. It was not full to the centre.

The three first are superior and the best; the other two are good and cannot hurt you.

The others I need not describe fully. Emotion, as supplied to me, is identical with Octavie Fontaine. Le Rhône (fine vermilion red), and Triomphe d'Angers are abundant bloomers, and nice for pot and bedding purposes.

If any others of note bloom in time for the October Number, I will give information. The whole of the above judgments have been formed in the open air.

Rushton.

W. F. RADCLYFFE.

EARLY-BLOOMING ACACIAS.

MANY plants, of which the natural season of blossoming under glass is in the winter or early spring months, acquire additional value from that circumstance, because their intrinsic beauty is then heightened by contrast with the "desolation that reigns without." Many of the New Holland Acacias possess this desirable property, which, in some species, is combined with exceeding beauty, as well as gracefulness of habit: consequently, there are no plants better adapted for ornamenting a conservatory, where they can be allowed

sufficient room to display unconfined their elegant growth. One of the finest species for this purpose is *Acacia dealbata*, of which there is a splendid specimen, now in the height of its beauty, in my own conservatory. I have seldom seen a plant of any kind equal in beauty to this, its wide-spreading branches being completely covered with a garment of green and gold, or more strictly speaking, with green and deep lemon colour; the latter colour greatly predominates, however, for the flowers are so numerous that they almost hide the pretty bipinnatifid leaves. This tree roots into a border beneath the floor of the house, and its stem was originally trained to one of the pillars that bear up the roof; but the stem is now larger than its former support, and the branches extend in different directions to a distance of several yards. It has been planted about eight years. A fine plant of *Acacia vestita* grows against another of the pillars. This, from its profuse-flowering and pendulous habit, is a very handsome species, and requires much less room than *dealbata*, which precedes *vestita* in flowering by nearly a fortnight. To these might be added other desirable kinds, as *Acacia armata*, a very free-flowering species, with flowers like golden balls; *A. lophanta*, with long spikes of whitish flowers; *A. verticillata*, with whorls of leaves like spines; *A. melanoxylon*, the Black Wattle of the Australians, with very curious leaves, the footstalks of which look like leaves, with the real leaves hanging to the points of them; and *A. pubescens*, a very elegant species, with drooping branches and racemes of ball-like flowers, borne in the greatest profusion. Indeed, all the species of this genus are highly interesting, and most of them elegant ornaments for the greenhouse or conservatory, deserving of general cultivation.

ROSA CANNABIFOLIA.

At a recent sitting of the Imperial Society of Horticulture at Paris, M. Rivière, the intelligent gardener at the Luxembourg, made a statement with regard to *Rosa cannabifolia* to the effect that it is only an accidental variety of *Rosa alba* which has been fixed by grafting. The most prominent character of the variety is, that the leaves are for the most part opposite, and do not become alternate as in all Roses. In lately walking through the collection of Roses at the Luxembourg, he there observed one plant of *Rosa cannabifolia*, on branches of which certain flowers had returned to the characters of those of *Rosa alba*; while others had preserved those which distinguish *R. cannabifolia*, and these branches were submitted to the Meeting. This is, then, another example of dimorphism which has been observed on different plants.

RAISING GRAPE VINES FROM LATERALS.

A FEW years ago Mr. Fleming, of Trentham, produced at a meeting of the Horticultural Society some cuttings of Vines, which, in five days, had formed roots as much as 3 inches long, and which had been prepared by a new process. The usual methods of multiplying the Vine are by layers, or cuttings, or eyes, each having so limited an application that much time must elapse before any considerable number of plants of a new variety can be propagated. The method pursued by Mr. Fleming is to take advantage of the laterals (which every Vine may be forced to produce in abundance), to separate those laterals close to the old wood as soon as they have three or four leaves, and to strike them in silver sand in the usual way.

If a Vine is so closely covered with glass that the air around it is always saturated with humidity, and if it is then exposed to the sun (the air being always warm), it breaks in the usual way; but, in a few days, each shoot will produce a lateral from the bottom of every leaf. These laterals, after growing to a certain length, will themselves break into fresh laterals, and so growth goes on. Thus, a Vine in such a situation, having fifty eyes, will form fifty new shoots: these shoots, after a time, will break into at least ten laterals, and each lateral may be expected to produce half a dozen other laterals of a second order. This being so, a single Vine with fifty eyes may be compelled to produce materials for three thousand new plants, instead of its power of multiplication being limited to the original fifty eyes, as is the case under ordinary circumstances.

The process is in most respects similar to that practised in the establishment then conducted by Mr. Weeks in the King's Road, where Vines of the old and new varieties were grown extensively. As soon as they have pushed a shoot 1 foot or 15 inches long, it is cut back to near the base, and the top is made into cuttings, every one of which strikes, and thus a great many plants of any particular kind are obtained in one season. The chief point is, to take care to start them sufficiently early to get the young wood strong and well ripened by the autumn.

In both cases young green wood is employed; but in the last-mentioned place a shoot is itself divided into cuttings, each having at least a couple of eyes; and there the operation ends. So that, while in the case above supposed there is a possibility of getting three thousand cuttings in a season by the use of laterals, we could hardly expect more than three hundred by merely dividing the first strong shoots into cuttings. We know not whether these methods are absolutely new; probably not, for they are such as theory would certainly suggest if brought to bear upon the subject. But they are so far novel, that they have not been generally employed by gardeners.

We say that they are such as theory would suggest. Nothing is more certain than that the greater and more active the vitality of a cutting, the more freely will it become a new individual by the emission of roots. It is equally certain that vitality is most active in the young shoots of plants, turgid with organisable matter, and abounding in nitrogenous principles: therefore it is a general axiom in theory, that a young cutting will strike more quickly than an old one; that green wood will root more readily than ripe wood. Propagation by the eyes of the Vine is indeed, in some degree, an evidence of this fact. But ripe or half-ripe wood, though least active, and charged in the smallest degree with organisable and nitrogenous matters, is usually preferred, and for the following reason:—It is indispensable that some time should elapse between planting a cutting and its emission of roots, during which time its vitality must be maintained by artificial means. In many plants this is an operation so difficult, or uncertain, that vitality departs before roots can come, and thus the cutting dies. Wherefore nearly ripe or fully ripe wood is often preferred, because its vitality, although comparatively low, is more easily supported in the absence of roots than if it were younger and more active. Whether or not, therefore, it is desirable to use green, half-ripe, or fully ripe wood for propagation, can only be determined experimentally. In many cases it has been thus determined, and we find one-year-old wood used for some things, two-year-old wood for others (as Oaks and Beeches when grafted), while in some cases the quite green wood is universally employed, to which latter class the Vine may be now referred.

But is this a good mode of propagating the Vine as well as an easy—that is to say, Will the young plants obtained from green wood be as healthy as if

from ripe wood? We understand that the Vines obtained by Mr. Fleming's process are weakly the first year, but become strong and healthy in the second, if allowed to break in a cool house. Probably he has never pushed the process to its extreme limits by availing himself of the third generation of laterals. Let us, however, suppose he did. Would the consequences be injurious? We cannot but think that they might be; for the laterals of the third generation, though active enough at first, would be likely to indicate symptoms of inherent, and possibly incurable, debility, as has occurred to the Dahlia in cases of the over-multiplication of that plant.

This is certain, that if Vines are multiplied by the method above described, and are struck comparatively late in the season, it will be more difficult for them to ripen their wood than when coming from eyes in the usual way. This is, however, mere speculation, and we should be glad to hear that our anticipations are unfounded.—(*Horticulturist*.)

THE HYDROPULT.

THE great secret of successful in-door gardening consists in the free and judicious use of the syringe. A greenhouse or conservatory that does not enjoy this luxury becomes a miserable lazar-house of vegetable incurables. Vermin and filth hold unbounded sway, and people become disgusted with their own want of success. Well do we recollect the former days of plant-culture—the days of “collections,” when the use of the syringe was yet limited or unknown. What a time for red spider, scale, and green fly! What fumigations and consumption of tobacco and tobacco paper, washings with tobacco water, and all sorts of remedies were resorted to!

We regard the introduction of the free use of the syringe as one of the events in modern gardening. To this is due the success of orchard-house management, Vine management, and plant management; but the old syringe with its slow suck and squirt is now as much out of date in modern gardening as an old stage waggon in modern locomotion.

Many are the improvements and complications of the old simple syringe. We have tried several of them; but for ease in working, and efficiency in result, we have not yet met with anything to equal the hydropult sent us by Mr. Button. It is powerful in operation, and so easy and comfortable to work, that one never gets fatigued. With such an instrument plants may be kept in perfect health, and quite free from insects and dirt. We first used it on a few Geraniums in our conservatory which were smothered with green fly during our temporary absence of ten days; but on our return a stout discharge from the hydropult sent them clean off across some unknown bourne whence they have never yet returned.

As an improvement we would recommend to Mr. Button the desirableness of supplying an additional rose of finer gauge than that fitted to the hydropult we have, so that a fine shower might be made use of occasionally, instead of the unmistakeable pelt to which plants must now be subjected.

ITALIAN VERBENAS.

IN Nos. 166 and 167 of the *Flore des Serres et des Jardins de l'Europe* there are two plates of what are called Italian Verbenas; they are seedlings raised by MM. Cavagnini frères of Brescia, and are all more or less beauti-

fully striped with various shades of colour on a white ground. Among the most beautiful are *Carolina Cavagnini* and *Conte Bern. Lechi*. The former is white, banded and striated with scarlet; the latter is white, banded and striated with violet. *Abbate Savoldi* has a brownish-violet ground, banded with reddish-brown; but the striping runs so into the ground colour that it is almost invisible to the naked eye. *Conte Valloti* is more delicately striped than *Conte Bern. Lechi*, and is not so much banded nor so deep in colour; but a very beautiful thing nevertheless. *Angelo Menzi* is not so large in the flower as the others, but the segments of the corolla are broader and fill up the flower better, approaching more to perfection according to the florists' standard than any of the others. *Emilia Cavagnini* bears a considerable resemblance to *Conte Valloti*, but is paler in colour and the segments of the petals are fuller. They are all very beautiful, and will, no doubt, form the groundwork of something very choice in the way of show Verbenas.

DE MARAISE AND BELLE JULIE PEARS.

WITH ILLUSTRATIONS.

THE tree of De Maraise, and which produced the fruit that furnished the subject of our present illustration, was received fifteen years ago from M. Papeleu, of Ghent. It is said to have originated with Van Mons, but what are the particulars of its history we have never been able to ascertain; it is, however, a variety which deserves to have a place among the most select of the autumn Pears.

The fruit is rather under medium size, even, very handsome, and regularly formed. The skin is smooth, and has a fine aurora glow on the side next the sun, and dotted over with large russet freckles. The glow of colour gradually fades away on the shaded side, where it is a fine clear yellow covered with large russet freckles. Eye very small and open, set in a shallow and rather narrow basin. Stalk long and slender, inserted by the side of a fleshy lip in a small narrow cavity. Flesh yellowish, tender, melting, and very juicy. Juice abundant, very rich, and honied, and with a fine powerful aroma which is not musky.

This is a very beautiful and very first-rate Pear, ripe in the end of October and beginning of November, and continues till December.

BELLE JULIE is a seedling raised by Van Mons, and which first fruited in 1842. It was named in honour of his grand-daughter, the daughter of General Van Mons.

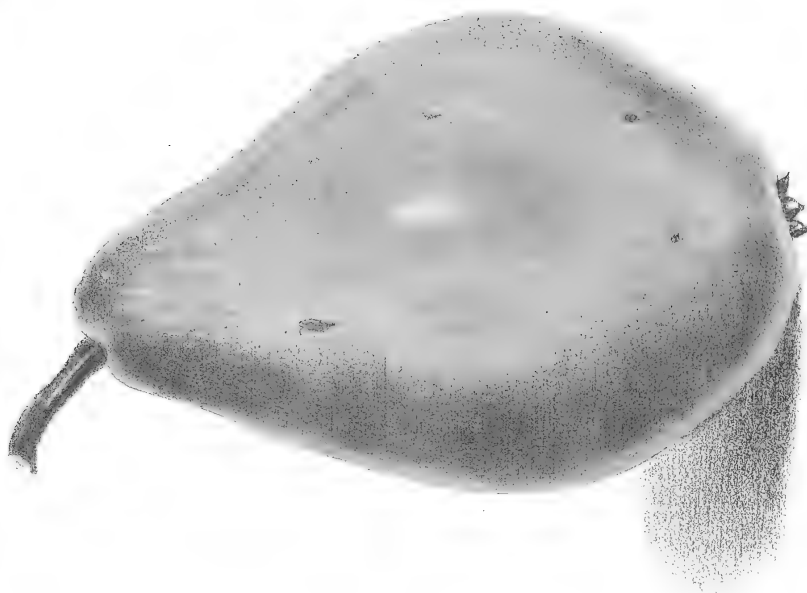
The fruit is long obovate, even, and regularly shaped. The skin is rather rough to the feel from the large russety specks with which it is covered. The colour is dull brown, somewhat like that of the Brown Beurré; and on the side next the sun it has a warm reddish-brown glow, like a gipsy's blush. On the shaded side, where the skin is not covered with russet, the green ground colour shows through. Stalk an inch long, brown, and woody, inserted on one side of the fruit under a fleshy lip. Eye clove-like, wide open, with long segments, and set almost on a level with the surface of the fruit. Flesh yellowish, tender, buttery, melting, and very juicy. The juice is rich, sugary, and vinous, with a fine perfume.

A most delicious Pear, ripe in the end of October. This ought to be more extensively cultivated.

Belle Julie Pear.

FWaller, Titian, 15. Hoster, London.

DeMaraise Pear.





THE ROSE EXHIBITIONS.

On Saturday, June 27th, the first of these was held at the Crystal Palace, Sydenham; and on Wednesday, July 1st, the National Rose Show was held at South Kensington, in connection with the third great Show of the Royal Horticultural Society.

Notwithstanding that the dry weather of the spring had made the time for flowering late in some districts, the entries were very numerous, but some intending exhibitors were unable to put in appearance at the Crystal Palace, owing to the severe storm that visited them a few days previously.

At the Crystal Palace Mr. J. Mitchell, of Piltown Nurseries, Maresfield, Sussex, was first with ninety-six varieties, single trusses; Mr. Turner, of Slough, second; and Messrs. Paul & Son, third; Mr. B. R. Cant, of Colchester, was fourth; and fifth, Mr. J. Cranston, of Hereford. Four days after, and with the same number at South Kensington, Mr. Cant was first; Messrs. Paul & Son, second; third, Mr. Mitchell; and fourth, Mr. John Keynes, Salisbury. In Mr. Cant's stand were splendid blooms of *Hybrid Perpetuals* William Griffith, Madame Boll, La Brillante, Madame Boutin, Senateur Vaisse, Madame Pauline Villot, Louis XIV., Wilhelm Pfitzer, François Lacharme, Alexandre Fontaine, Catherine Guillot, L'Etendard, Madame Furtado, Comtesse Kergorlay, Eugène Appert, Souvenir de Comte Cavour, Madame Vidot, Louis Peyronny, Charles Lefebvre, Clement Marot, Triomphe de Paris, Belle de Bourg-la-Reine, John Waterer, Empereur de Maroc, Comtesse de Chabillant, Madame Pearson, and Prince Léon; *Tea-scented*, Devoniensis, Gloire de Dijon, Comte de Paris, Souvenir de l'Elise, Rubens, and Madame Willermoz; *Noisette*, Lamarque, and Celine Forestier; *Hybrid Bourbon*, Paul Ricaut. In Messrs. Paul & Son's collection were fine flowers of the following:—*Hybrid Perpetuals*, Monte Christo, Maréchal de Vaillant, Madame C. Wood, Baron Rothschild, John Hopper, Jules Margottin, Virginal, Vicomte Vigier, Le Rhône, Lord Canning, Auguste Mié, Aurora, Madame Pauline Villot, Agatoide, Professor Koch, and William Griffith; *Bourbon*, Souvenir de Malmaison; *Tea-scented*, Gloire de Dijon.

With forty-eight varieties, three trusses of each, the following awards were made at Sydenham:—First, Mr. Cant; second, Mr. Turner; third, Messrs. Paul & Son; fourth, Mr. D. Spriggings, St. Albans; and fifth, Mr. Hollamby, Tunbridge Wells. At the National Show, in an exactly corresponding class, Mr. Turner was first; second, Messrs. Paul and Son; third, Messrs. Fraser, Lea Bridge Road; and fourth, Mr. Cant, of Colchester. Mr. Turner's flowers were—*Hybrid Perpetuals*, Madame Boll, Comtesse de Chabillant, François Arago, Comte de Nanteuil, Lord Raglan, Madame Domage, Madame C. Crapelet, Souvenir de Comte Cavour, Général Jacqueminot, Agatoide, Mathurin Regnier, Duchess of Sutherland, François Lacharme, Léon des Combats, Madame Vidot, Baronne Prevost, Louis XIV., Parmentier, Madame de Cambacères, Madame Furtado, Prince Imperial, Jules Margottin, Jean Bart, Madame Knorr, Pauline Lanzezeur, Turenne, Duchesse d'Orléans, Evêque de Nîmes, Caroline de Sansal, Madame Place, Anna Alexieff, Géant des Batailles, John Waterer, Madame Hector Jacquin, Victor Verdier, Senateur Vaisse, and Mrs. Rivers; *Tea-scented*, Narcisse, Gloire de Dijon, and Devoniensis; *Hybrid Bourbon*, Model of Perfection, Paul Ricaut, and Charles Lawson; *Noisette*, Celine Forestier; *Gallica*, Boula de Nanteuil, and Crested Moss.

Returning again to the Exhibition at Sydenham, I find that with twenty-four varieties, three trusses of each, Mr. E. P. Francis, of Hertford, was first; second, Messrs. Paul & Son; third, Mr. Laing, of Twickenham; fourth, Mr. D. Spriggings; and fifth, Mr. G. Clarke, Brixton Hill. In the competition at South Kensington Mr. Keynes was first; Mr. Francis, second; third, Mr. Laing; and fourth, Messrs. Paul & Son. Mr. Keynes' flowers were superb, and consisted of Charles Lawson, Léon des Combats, Senateur Vaisse, Madame Vidot, Madame Vigneron, Général Jacqueminot, Madame Boll, Caroline de Sansal, Victor Verdier, François Lacharme, Prince Léon, Colonel de Rougemont, Madame Standish, Evêque de Nîmes, François Premier, Duc d'Ossuna, Souvenir de Malmaison, Paul Dupuy, Jules Margottin, Comtesse de Chabillant, La Ville de St. Denis, Pauline Lanzezeur, Olivier Delhomme, and Lord Raglan. Throughout this class the flowers were very fine indeed.

Twenty-four varieties, one truss of each, were exhibited both at the Crystal Palace and at South Kensington. At the former place, Mr. W. H. Treen, of Rugby, was first; Mr. W. Stacey, of Dunmow, second; third, Mr. W. H. Davis, Newbury; fourth, Mr. Knight, Hailsham, Sussex; and fifth, Mr. Laing, Twickenham. At the National but one of these exhibitors was "placed," Mr. Treen being third; for here Mr. Turner is first; Mr. Keynes, second; and Mr. Cranston, Hereford, extra prize. Mr. Turner had in his boxes, *Hybrid Perpetuals*, Senateur Vaisse, Jules Margottin, Charles Lefebvre, Souvenir de Comte Cavour, Lord Raglan, Anna Alexieff, Madame Boll, Général Jacqueminot, Madame Hector Jacquin, Madame C. Wood, Madame Knorr, Victor Verdier, Madame Boutin, Vicomte Vigier, Mathurin Regnier, Madame Charles Crapelet, Anna de Diesbach, Madame Vidot, and

Charles Lawson; *Tea-scented*, Madame Willermoz, Devoniensis, and Gloire de Dijon; and *Bourbons*, Caroline de Sansal, and Paul Ricant.

With twelve varieties, one truss of each, the honours at Sydenham was thus divided:—First, Mr. Turner; second, Mr. Francis; third, Mr. A. Gosling, Tower Nursery, Heathfield; fourth, Mr. W. Stacey; and fifth, Mr. W. H. Davis. There was no class similar to this at South Kensington.

Coming now to the Classes for Amateurs, I have to say what splendid flowers Mr. J. T. Hedge, of Colchester, produced at both Exhibitions. He is confessedly, judging from what has been seen at the shows, the best amateur Rose-exhibitor we have; and not only are his flowers of more than average excellence, but their arrangement is neat and tasteful, and his method of naming his flowers is well worthy general adoption.

At Sydenham, with thirty-six varieties, one truss of each, Mr. J. T. Hedge, Reed Hall, Colchester, was first; second, Mr. W. Ingle; third, Mr. W. Corp, of Salisbury; fourth, Mr. C. M. Worthington, Caversham Priory, Reading; fifth, Mr. A. Moffat, gardener to Viscount Maynard, Dunmow; and an extra prize to Miss Crawshaw, Caversham Park, Reading. At the Crystal Palace forty-eight varieties were exhibited, and again Mr. Hedge is placed first, having among others the following in fine condition:—*Hybrid Perpetuals*, Madame Masson, Anna de Diesbach, Mrs. Rivers, Louis XIV., Colonel de Rougemont, Sénateur Vaisse, Souvenir de Leveson Gower, Général Jacqueminot, Queen Victoria, Madame Boll, La Fontaine, John Hopper, Madame Vidot, Madame Furtado, Comtesse de Chabillant, Gloire de Santenay, Mathurin Regnier, François Lacharme, Lord Raglan, Madame de Cambacères, Madame Domage, Jules Margottin, La Ville de St. Denis, Baronne Prevost, Prince Léon; *Gallica*, Boula de Nanteuil, Leo X., Dr. Dielthim, and Shakespeare; *Tea-scented*, Gloire de Dijon, Madame Bravy, L'Enfant de Lyons, Madame Sertot, Adam, Rubens, L'Enfant Trouvé, and Souvenir d'un Ami; *Damask*, La Ville de Bruxelles, and Madame Zoutman; and *Noisette*, Triomphe de Rennes. Second, Miss Crawshaw, Caversham Park, Reading; third, Mr. C. M. Worthington, Caversham Priory, Reading; fourth, Mr. Ingle; and an extra prize to T. Laxton, Esq., Stamford.

Twenty-four varieties were the number of varieties required in Class 7 at the Crystal Palace. Mr. Hedge was first; second, Mr. G. Marlow, Mortlake; third, Mr. A. Moffat; fourth, Mr. Dennis, Folkington, Sussex; fifth, Mr. W. Ingle; and two extra prizes were also awarded. At South Kensington, with twenty-four varieties, Mr. Hedge is thrust into second place by Mr. Dobree, Wellington, Somerset, who was first with La Reine, Souvenir de Malmaison, Sénateur Vaisse, Lord Raglan, Louise de Savoie, Victor Verdier, Charles Lefèvre, Madame Furtado, Prince Camille de Rohan, Caroline de Sansal, Madame C. Wood, Gloire de Dijon, Madame Domage, Madame Rivers, Madame Crapclét, Madame Masson, Queen Victoria, Gloire de Santenay, Moiret, Jules Margottin, Comtesse de Chabillant, and Lord Raglan. Third, Mr. Ingle; fourth, the Rev. S. R. Hole, Causton Manor, Newark.

Eighteen varieties were exhibited at each Show. At Sydenham, Mr. Hedge was first; second, Mr. Ingle; third, Mr. Brown, gardener to Mrs. Alston, Elendon Hall, Birmingham; fourth, Mr. W. Plester, gardener to Mrs. Rush, Bishop's Stortford; and fifth, Miss Crawshaw, Reading. At the National, Mr. Hedge was first; and Mr. Ingle, second; third, Mr. J. Stratton, Marlborough; and extra prizes to Mr. C. M. Worthington, and Mr. Moffat. Mr. Hedge had *Hybrid Perpetuals*, Caroline de Sansal, Monte Christo, Comtesse de Chabillant, Madame Domage, Auguste Mié, François Lacharme, Madame Boll, Madame de Cambacères, William Griffith, Madame Furtado, Lord Raglan, and Madame Vidot; *Tea-scented*, Souvenir d'un Ami, Gloire de Dijon, and Narcisse; *Hybrid Bourbon*, Charles Lawson, and Chénédoile; and *Gallica*, Prince Regent. Mr. Ingle had *Hybrid Perpetuals*, Madame de Cambacères, Duc de Cazes, Charles Lefèvre, William Griffith, Général Jacqueminot, Madame Rivers, Victor Verdier, Eugène Appert, Madame Vidot, and Comtesse de Chabillant; *Tea-scented*, Gloire de Dijon, Elise Sauvage, and Devoniensis; *Hybrid Bourbon*, Paul Ricant.

Referring back to the Crystal Palace, I find that with twelve varieties, the Rev. V. Knox Child, Dunmow, was first; second, Mr. Pullinger, gardener to F. G. Wilkins, Esq., Leyton; third, Mr. Hedge; fourth, Miss Crawshaw; and fifth, Mr. W. Plester. At South Kensington Mr. Hedge was first, having *Hybrid Perpetuals*, Madame Boll, Caroline de Sansal, La Fontaine, Mrs. Rivers, La Ville de St. Denis, Lord Raglan, and Madame Vidot; *Tea-scented*, Gloire de Dijon, and Souvenir d'un Ami; *Hybrid Bourbon*, Juno, and Charles Lawson. Second, Mr. H. Helyar, Pendomer, Yeovil; third, Mr. Stratton; and extra prize to Mr. S. Dobree.

New Roses of 1861 and 1862 were exhibited at Sydenham in collections, no number being specified. The first prize was awarded to Messrs. Paul & Son, Cheshunt, who had, of *Hybrid Perpetuals*, Wilhelm Pfitzer, Louise Darzins, Paul Feval, Archbishop of Paris, François Lourat (a flower of fine form), Prince Camille de Rohan (a fine dark flower), Madame Caillat, Etienne Lecrosnier, Monte Christo, Turenne, Souvenir de Mons. Rousseau,

Peter Lawson (new of 1863), Duchesse d'Alençon Lord Clyde (new of 1863, brilliant crimson, the best flower in the collection), President Lincoln, Robert Fortune, Gloire de Chatillon, Olivier Delhomme, Professor Koch, Vulcain (showy purple), Le Rhône (bright dark red, of fine form), Jean Goujon (new of 1863, very bright Rose, a well-formed flower), Triomphe de Caen (very dark and good), Beauty of Waltham, Madame Clemence Joigneaux, Richard Smith (a dark-coloured flower of fine form), Maréchal Vaillant (brilliant red, very good), Madame Helyc, Maurice Bernardin (a very fine flower, rich dark crimson), Souvenir de Comte Cavour (Margottin's variety), Souvenir de Comte Cavour (Robert and Moreau's variety)—the first a very dark flower, the last light rose; Alphonse Damazin (a good and very brilliant scarlet flower), Madame Charles Wood, and Pourpré d'Orléans; *Tea-scented*, Alba Rosea, and Gloire de Bordeaux. Second, Mr. William Paul, with forty-three trusses, among which the following were the most striking:—*Hybrid Perpetuals*, Souvenir de Comte Cavour (Margottin), magnificent in colour and form, much superior to its duplicate in the first stand, and Red Rover (light bright red); and *Bourbon*, Mdle. Emain (blush white, a flower of good form). Besides these were Charles Lefebvre, Triomphe de Caen, Turenne, Madame Caillat, Wilhelm Pfitzer, Duc de Rohan, Gloire de Chatillon, Christian Pittner, Souvenir de Lady Eardley, Professor Koch, François Lacharme, Reynolds Hole, and Beauty of Waltham—all *Hybrid Perpetuals*. Third, Mr. Standish, of Bagshot, with *Eclatante* (very dark well-formed flower), Madame Charles Wood, André Leroy, Madame Standish, Mrs. Dombrain, Vulcain, Vicomte Vigier, Turenne, André Desportes, Grégoire Bourdillon, J. F. Lombard, Madame Boutin, Reynolds Hole, and Souvenir de Comte Cavour.

At the Horticultural Society's Show, with eighteen varieties of new Roses of 1862 and 1863, Mr. W. Paul, of Waltham Cross, was first with *Hybrid Perpetuals*, Madame C. Wood, Mdle. Ernest Dréol, Prince Camille de Rohan, Gloire de Chatillon, Turenne, Charles Lefebvre, Robert Fortune, Professor Koch, Madame Bernardin, Louise Darzins, Beauty of Waltham, Vicomte Vigier, La Brillante, Souvenir de Mons. Rousseau, John Hopper, and François Lacharme; *Bourbons*, Mdle. Emain, and Louis Margottin. Second, Mr. Cant, of Colchester, with *Hybrid Perpetuals*, Madame Boutin, La Brillante, John Hopper, Madame C. Wood, Charles Lefebvre, François Lacharme, Olivier Delhomme, Reynolds Hole, Baron A. de Rothschild, Souvenir de Comte Cavour, Vicomte Vigier, Vulcain, Mdle. Ernest Dréol, Grégoire Bourdillon, Wilhelm Pfitzer, Murello, Souvenir de Mons. Rousseau, and Monte Christo. Third, Messrs. Paul & Son. Fourth, Mr. Keynes.

Some features were in the schedule of the National Rose Show that did not appear at the Crystal Palace. Prizes were offered for twelve trusses of any new kinds of Roses of 1862. Mr. William Paul was first with Beauty of Waltham; second, Mr. Cant, with Olivier Delhomme; and third, Mr. Keynes with François Lacharme. With twelve trusses of a single Rose, Mr. Keynes was first with Madame Vidot; second, Mr. W. Paul, with Général Jacqueminot; third, Mr. Mitchell, with Comtesse de Chabillant. With twelve *Tea-scented* and *Noisette* Roses, Mr. J. T. Hodge was first with L'Enfant Trouvé, Queen Victoria, Souvenir d'un Ami, Enfant de Lyon, President, Madame Bravy, Madame Sertot, Madame Levauxville, Bougère, Moiret, La Boule d'Or, and Madame William. Second, Mr. W. Paul; third, Mr. Exell, gardener to J. Hollingworth, Esq., Maidstone.

At Sydenham prizes were offered for thirty-six blooms of Roses exhibited in a vase for table decoration. They were just bunched together, the arrangement not admitting of much taste being displayed. Mr. Turner, of Slough, was first; second, Mr. Hedge of Colchester; third, Mr. Cranwell, gardener to A. Pulling, Esq., Penge; and fourth, Mr. E. P. Francis, of Hertford.

In drawing up the schedule of the National Rose Show, the Committee seemed to have left the number of the blooms and the shape of the design more to the exhibitors: thus, at the Horticultural Society, Mr. Turner's huge bouquet came down to third place, the first prize being awarded to a very pretty design by Miss Wint, of Cadogan Terrace, Chelsea, in the way of Mr. March's elegant conception. Second, Miss Robinson, Connaught Square, Hyde Park. Prizes were also offered here for six bouquets of Roses exhibited in Hyacinth-glasses. With these Mr. William Paul was first; second, Mr. Keynes; and equal third, Mr. Turner, and Mr. E. P. Francis. With a collection of Moss Roses, Mr. William Paul was first; and Messrs. Paul & Son second. These, though produced in large quantities, did not make such a gay appearance as the stands where all the classes of Roses are grouped together.

Roses in pots were shown both at Sydenham and at South Kensington. At the former place Mr. William Paul was first with twelve varieties, and equal first with Messrs. Paul and Son, with twenty-five plants in fifteen varieties. At South Kensington with twenty-four plants in ten kinds, Mr. W. Paul was first; second, Mr. E. P. Francis; and third, Messrs. Paul & Son. With twenty new varieties in ten kinds, Messrs. Paul & Son were first, and Mr. W. Paul, second.

"Last scene of all" was Class 16, for a single truss of a Hybrid Perpetual Rose, two prizes being offered by W. Wilson Saunders, Esq., the Treasurer of the Royal Horti-

cultural Society. Some eight or ten competitors appeared. The Rev. H. Helyar, of Yeovil, was first with a splendid truss of Comtesse de Chabillant; second, Mr. Turner, with Charles Lefebvre.

I must defer a report of the Fruit show for the present, having already trespassed beyond the usual limits you assign me. Both Exhibitions must have been very successful, the company being very large on both occasions, and the weather all that could be desired. The gardens of the Horticultural Society were in their best form; and it was, indeed, a relief to get away from the crowded fruit-tables into the more agreeable atmosphere of the gardens.

Quo.

THE METROPOLITAN EXHIBITIONS.

ROYAL HORTICULTURAL SOCIETY, *June 17th (Continued from page 119).*—A large quantity of new plants and seedling florists' flowers were staged as usual. In the Class for new and rare plants in flower, prizes were awarded to Messrs. Veitch & Son for a beautiful species of *Pancratium*, from the Philippine Islands, having a truss of erect white flowers. By the side of this was another species from the same quarter, much dwarfer in habit and with smaller flowers. To the same, for a huge example of *Bromelia sceptrum*, like a great Pine Apple, from which issued a panicle of white blossoms with purple tips. To Mr. W. Bull, for *Centaurea argentea*, noticeable from its white woolly leaves.

Of new or rare tender plants not in flower, prizes were awarded to Messrs. T. Jackson and Son for *Ouvirandra Berneriana*, one of the Madagascar Lattice Plants; by the side of which was a beautiful specimen of *O. fenestralis*, from Mr. W. Bull. To Messrs. Veitch and Son, for *Marattia Cooperii*, *Selliguea pothifolia*, and *Alsophila Tænitis* var. *denticulata*, a fine tree Fern. To Messrs. Low & Co., for their singular variety of *Trichomanes crispum*. To Messrs. A. Henderson & Co., for the variegated *Rhynchospermum*; and a lower award to Messrs. Veitch & Son, for a *Pinanga* sp. and a *Lomaria* sp.

One new Orchid in flower was present from Mr. B. S. Williams, of Holloway—*Cypripedium Stoneii*, from Borneo, a very distinct and handsome variety.

Of new and rare hardy ornamental plants, Mr. J. Standish had *Deutzia crenata* fl. pleno, a variety sent home by Mr. Fortune. It has thickly-studded racemes of double-white flowers, marked externally with rose; and *Lychnis Senno*, a perennial variety from Japan, with bright crimson flowers. Another variety accompanied it, *L. Senno striata*, with striped flowers, but not so good as the first. Messrs. Fisher, Holmes, & Co., Sheffield, had a hardy golden variety of the Irish Yew, named *Taxus fastigiata*; and an elegant *Abies* species from North America. Messrs. Veitch & Son produced several Ferns; and Messrs. Ivery and Son a very handsome variety of the Lady-Fern, var. *glomeratum*.

Of newly-introduced plants there were examples of *Alocasia Lowii* from Messrs. Low and Co.; *mucronatum* and *Iveryanum*, two more varieties of Lady-Ferns, from Messrs. Ivery & Son; and the pretty *Cheilanthes Borsigiana* from Mr. W. Bull.

A whole legion of seedling florists' flowers put in their claims for Certificates. First-class Certificates were awarded to Mr. B. S. Williams for *Amaryllis perfecta marginata*, orange scarlet edged and flamed with white, a beautiful variety; to Mr. S. Halley, Blackheath, for *Zonale Geranium Adonis*, exhibited in fine condition, and with large trusses of dazzling flowers; and to G. W. Hoyle, Esq., Reading, for *Pelargonium Achilles*, bright deep carmine lower petals stained with rich dark crimson, dark top petals and white throat, a very novel and showy flower, of fine form. Second-class Certificates were awarded to G. W. Hoyle, Esq., for *Pelargonium Aristides*, another dark flower of good properties; and to Mr. Watson, St. Alban's, for his dark bedding *Calceolaria Bijou*, to all appearance an acquisition as a bedder. The following were Commended:—*Pelargonium Maid of Honour*, from W. Beck, Esq., Isleworth; variegated *Fuchsia Pillar of Gold*, from Messrs. F. & A. Smith (the appearance of which raises the question as to what earthly use these variegated *Fuchsias* are, seeing that the flowers are worthless, and that the brightness of the variegation dims with age); *Petunia Mrs. Sherbrook*, from Mr. J. Turner, a reflexed striped variety; *Verbena Othello*, a small-flowered purple variety, with white eye, very free; *Fancy Pansies Harlequin*, *Bob Ridley*, and *Dazzle*, from Mr. Bragg, of Slough; *Fancy Pansy Pallas*, from E. J. Lowe, Esq., Beeston; and, lastly, a pan of hybrid *Mimulus*, from Messrs. E. G. Henderson & Son.

The Fruit was arranged in one of the sections of the building adjoining the garden of the Society. Mr. Masters, gardener to the Earl of Macclesfield, Sherborne Castle, was first with Black *Hamburgh* and *Muscat of Alexandria* Grapes, Sir C. Napier Strawberries, *Scarlet Gem* Melon, *Queen Pine*, and *Royal George* Peaches. Second, Mr. A. Henderson, *Trentham Gardens*, with *Black Hamburgh* and *Trentham Black* Grapes, *Violette Hâtive* Nectarines, *Royal George* Peaches, *Trentham Hybrid Green-fleshed* Melon, and *Black Jamaica* Pine.

Third, Mr. R. Turnbull, Blenheim Gardens. With single fruit of Cayenne Pine, Mr. Taylor, Temple Newsam, Leeds, was first and second, the best fruit weighed 4 lbs. 11 ozs. In Class C, for any variety except Cayenne, Mr. Hutchison, Castle Malgwyn, Carmarthen, was first with a fruit of Queen, weight $4\frac{1}{2}$ lbs.; second, Mr. J. Hall, gardener to Earl Scarborough, Rotherham, with a Queen, weight 5 lbs. 3 ozs. In this class Mr. Thomas Young, gardener to C. Bailey, Esq., Aberdare, had a large fruit of Providence, weighing $12\frac{1}{2}$ lbs.

Grapes, if not overplentiful, were shown well, though the White Grapes were scarcely so ripe as could be wished in some instances. With three bunches of Black Grapes, Mr. Lawkins, gardener to G. Brassey, Esq., Hertford, was first, having splendid Black Hamburgs, fine, and well coloured; second, Mr. Turner, Slough; and third, Mr. G. Jackson—both with Black Hamburgs. In the Class for three bunches of White Muscats, Mr. Emberry, gardener to A. Moss, Esq., Chadwell Heath, was first, having fine examples of Canon Hall Muscats; second, Mr. Turnbull, Blenheim, with Muscat of Alexandria; third, Mr. Turner, with White Muscats. With three bunches of White Grapes, other than Muscats, Mr. T. Wills, Oulton Park, Cheshire, was first with first-rate specimens of that much-reviled Grape Golden Hamburg; second, Mr. Mould, gardener to J. Sladen, Esq., Walford, with Chasselas Musqué; third, Mr. J. Cross with Sweetwater. By the side of these was a bunch of a new White Grape, named Duchess of Buccleuch, from Mr. Thomson, Dalkeith, N.B., to which a First-class Certificate had been awarded. In appearance it strongly resembles the Royal Muscadine, but has a Muscat flavour.

Peaches and Nectarines were numerous and very fine. With a dish of the first, Mr. Allen, gardener to E. Hopwood, Esq., Hopwood Hall, and Mr. Rutland, gardener to Captain Peploe, Garston, Hereford, were adjudged equal first; Mr. Allen had Royal George, and Mr. Rutland, Noblesse. Second, Mr. S. Snow, Wrest Park, with Violette Hâtive. Third, Mr. Brown, gardener to Sir C. Knightly Bart., Fawsley Park, Daventry. With a dish of Nectarines, Mr. Rutland was first with Elruge; second, Mr. Brown, with Violette Hâtive; third, Mr. Horwood with the same.

Cherries, in fifties, were furnished by Mr. A. Henderson, of Trentham, who was first with Elton; second, Mr. Snow, with Knight's Early Black; and third, Mr. Martin, with Elton.

With a single dish of Strawberries, Mr. R. Smith, of Twickenham, was first with beautiful fruit of British Queen; second, Mr. Widdowson, gardener to C. A. Barns, Esq., Wick, with Sir Harry; and third, Mr. C. Turner with President. With three dishes Mr. Smith was again first, having Empress Eugénie, Sir C. Napier, and British Queen; second, Mr. Widdowson with Sir Harry, Sir C. Napier, and Crimson Queen; third, Mr. Dwerrihouse, Heckfield Gardens, with British Queen, Crimson Queen, and Sir C. Napier.

Mr. Meredith, of Garston, Liverpool, and Mr. Chilman, gardener to Mrs. Smith, Epsom, were first and second with Green-fleshed Melons; and Mr. Terry, gardener to L. Ames, Esq., St. Albans, and Mr. W. Kalle, gardener to Earl Lovelace, Ripley, Surrey, with Scarlet-fleshed varieties.

In the Miscellaneous Class, Messrs. H. Lane & Son, Berkhamstead, had Cherries, Pears, &c. With fruit in pots there were also some good Figs, fruit of *Passiflora quadrangularis*; and from one exhibitor came six dishes of Apples in a capital state of preservation.

In a corresponding corridor were placed the designs for the dinner-table decoration, to be composed of fruits and flowers, in competition for the prizes offered by Sir C. W. Dilke, Bart. The prizes were awarded by a jury of noble ladies. The best design was furnished by Lady Rokeby, Montague House, Portman Square; and like the chief portion of those furnished was modelled after that of Mr. March's exhibited two years ago. There seemed to be scarcely any novelty of design; while stuffed humming-birds, gold fish, and other accessories were added in some instances. I shrink from attempting to describe, much less of criticising these designs. They are essentially a ladies' department, and should be both judged and criticised by them alone. I thought the second and third designs, as well as the first, very handsome. The second prize was awarded to Mrs. J. W. Bliss, Tunbridge Wells; and the third to Mrs. Fawcett, Westbourne Street, Hyde Park. Those furnished by the following were Highly Commended:—Mr. Alfred Salter, William Street, Hammersmith; Lady C. Kerrison, 140, Piccadilly; and Lady Holmesdale, Berkeley Square.

ROYAL BOTANIC SOCIETY, REGENT'S PARK, *June 24th*.—This was the last of the three great summer Exhibitions, and it certainly was the gayest; while in point of company it must have been the most successful of all. I never before saw such a throng gathered within the large tent as was seen there on the Wednesday afternoon. You had to do stern battle in making your way into the presence of the most conspicuous objects of interest; and when there, it required some dexterity and courage to extricate oneself from amid the deep margin of crinoline that crowded every avenue in the tent.

In the large group of new plants present were seen many subjects that have appeared before, and have also received awards at previous shows. Messrs. Veitch & Son led the way with a large and valuable division, to which the large number of eleven First-class Certificates

were awarded for various new plants with some of the most difficult and unpronounceable names I have ever met with. So many new plants have been awarded First-class Certificates this season, that it causes one to wonder where they will all find purchasers, and how they will repay those who have them in their possession. At every exhibition "the cry is still 'They come!'" and some new aspirants to fame are introduced to us from Japan, or elsewhere. Mr. Standish is as energetic as the great Chelsea firm in introducing new plants, and in his wake came Mr. Bull, who, by the way, is a "new-plant merchant," I suppose in just the same sense as that which constitutes any retail seedsman now-a-days a "seed merchant;" and, then, there is Mr. B. S. Williams, Messrs. T. Jackson & Son, and others, all clamouring for the public ear to bestow a hearing to the merits of their introductions. At this Show Messrs. Low & Co., T. Jackson & Sons, and B. S. Williams also got First-class Certificates.

Some of the "new" florists' flowers appeared for the first time, and among them were the following that received First-class Certificates:—*Pelargoniums* *Firefly*, a very bright flower with dark top petals, very striking; and *Clara*, bright carmine stained with crimson, and white throat—both flowers of great merit, from Mr. Nye, gardener to E. Foster, Esq., Clewer Manor. *Pelargonium* *Achilles* from G. W. Hoyle, Esq., Reading. Fancy *Pelargonium* Mr. Dorling, beautiful rose, margined with white, a large bold flower, from Mr. Turner, of Slough. And the same award to three splendid Pinks—namely, Rev. George Jeans, Marion, and Lord Herbert, all very large flowers, and laced to perfection. To Mr. C. J. Perry, Castle Bromwich, Birmingham, for a very showy seedling *Verbena*, named *Startler*, crimson, with white eye, a flower that will "tell" on the exhibition table; and to Mr. C. House, of Chalvey, for a seedling self *Pansy* *Black Model*. Second-class Certificates were awarded to Mr. Nye for two *Pelargoniums*—*Rienzi*, carmine rose, stained with crimson, dark top petals and white throat; and *Victory*, deep bright pink with white throat, and dark top petals. To Mr. Turner for three seedling Pinks; to Mr. Perry for two more *Verbenas*; and to Messrs. F. & A. Smith for *Petunia* Mrs. Smith.

I had taken full notes of the Stove and Greenhouse Plants, Orchids, Cape Heaths, and Ferns; but as the shows have come so "fast and furious" upon me lately, I am obliged to curtail the reports to some extent. Some new features were added to the florists' flowers, and I am desirous of touching on these.

Fuchsias were good, and attracted considerable attention. Mr. Gardiner, gardener to J. Stutter, Esq., Clapham, was first with six varieties, having plants covered with bloom of *Senator*, *Prince Imperial*, and *Isa Craig*, dark kinds; *Rose of Castille* and *Fair Oriana*, light; and *Madame Cornelissen*, a very fine white-coralae'd variety. Second, Mr. Cannell, gardener to J. Jennings, Esq., Clapham, with *Always Ready*, *Prince Alfred*, and another dark; *Reine Blanche* and *Schiller*, light; and *Madame Cornelissen*.

Pelargoniums were extremely fine, and the plants staged by Mr. Nye were distinguished by the rich colour of the flowers. With twelve varieties, Mr. Turner was first, having *Spotted Gem*, *Perdita*, *William Bull*, *Viola*, *Ariel*, *Nestor*, *Glowworm*, *Bacchus*, *Bijou*, *Marie*, *Osiris*, and *The Belle*. Second, Messrs. Fraser, with *Fairest of the Fair*, *Bracelet*, *Mer Polaire*, *Matilda*, *Norma*, *Sir C. Campbell*, *Prince of Prussia* (Story's), *Rosa Bonheur*, *Madame Furtado*, *Sanspareil*, *Osiris*, and *Bacchus*. In the *Amateurs' Class*, Mr. Nye was first with *Golden Hue*, *Ursula*, *Perdita*, *Ariel*, *Empress Eugénie*, *Viola*, *Matilda*, *Eastern Beauty*, *Prince of Prussia* (Story's), and *Bacchus*. Second, Mr. Wiggins, gardener to W. Beck, Esq., Isleworth. With six fancy *Pelargoniums*, Messrs. Fraser and Turner were placed equal first, the former having good plants of *Cloth of Silver*, *Lady Craven*, *Claudiana*, *Cheerfulness*, *Sarah Turner*, and *Delicatum*. Mr. Turner had *Cloth of Silver*, *Bridesmaid*, *Aeolus*, *Arabella Goddard*, *Delicatum*, and *Marionette*. In the *Amateurs' Class*, Mr. Bailey, gardener to T. Drake, Esq., Amersham, was first, having *Rosabella*, *Arabella Goddard*, *Crystal Beauty*, *Lady Craven*, *Negro*, and *Musjid*. Second, Mr. Shrimpton, gardener to A. Doxat, Esq., Putney Heath. Mr. Nye was the only exhibitor of six large *Pelargoniums*, having plants of *Bracelet*, *Sir C. Campbell*, *Viola*, *Diadem*, *Fairest of the Fair*, and *Sanspareil*. With six new kinds sent out in the autumn of 1861 and 1862, Mr. Turner was first, having *Celeste*, *Lord Chancellor*, *Novelty*, *Tunon*, *Royal Albert*, and *Fair Rosamond*. Second, Messrs. J. & J. Fraser, with *Mdlle. Patti*, *Lilacina*, *Patroness*, *Eldine*, *Admiration*, and *Lord Chancellor*. Third, Mr. Wiggins, with *Mira* (a very showy spotted kind), *Sylph*, *Lilacina*, *Alba Regina*, *Butterfly*, and *Bessie*. With six scarlet varieties, Mr. Windsor, gardener to Miss Crawley, Highgate, was first; and Mr. Duke, gardener to T. Duckworth, Esq., Finchley, second. Among these the best were *Brilliant*, *Perfection*, *British Flag*, *Tom Thumb*, *Premier*, *Commander-in-Chief*, *Flower of the Day*, and *Christine*.

Cut *Roses* were plentifully produced. These will come under notice in the reports of the following *Rose Exhibitions*.

Stands of twenty-four and twelve Pinks were produced. With the former number, Mr. Turner was first, having a splendid stand of blooms—viz., Rev. G. Jeans, *Diadem*, *Device*, C. Turner, *Alma*, *Goliath*, *Attraction*, Ernest, Mr. Hobbs, *Nina*, James Hogg,

Dr. Maclean, Marion, Betram, Bridesmaid, Cristabel, Blondin, Lord Hill, Harlequin, Titien, Princess of Wales, and seedlings. Second, Mr. H. Hooper, Bath. With twelve varieties, Mr. W. Hale, Stoke Pogis, Bucks, was first, having *Attraction*, Mrs. Harper, Lord C. Wellesley, Mr. Gye, *Empress*, Hector, Blondin, Brilliant, Victory, Jessie, Clara, and seedling. Second Mr. D. Weymouth, Burlington, Bristol.

With thirty-six varieties of Pansies, Messrs. Downie, Laird, & Laing were first with some remarkably good flowers. Second, Mr. J. Fraser, Belmont, Edinburgh. Messrs. Downie & Co. also had some capital Fancy Pansies, among which were good blooms of Maccaroni, Earl of Rosslyn, H. O. Nethercote, Mrs. Nethercote, and Black Prince.

Stands of cut Verbenas came from Messrs. Turner, Barham of Hastings, Perkins & Son of Coventry, Perry of Birmingham, and others. From Messrs. Barr & Sugden, King Street, Covent Garden, came collections of *Ixias* and Spanish Iris.

The show of fruit was extremely good, excepting the collections of fruit, which were by no means up to the average of excellence. The first prize was awarded to Mr. Rufflet, gardener to Lord Palmerston, Brocket Hall, Herts, who had Black Hamburg and White Muscat Grapes, Leo's Perpetual Figs, Galande Peaches, Elruge Nectarines, Scarlet Gem Melon, &c. Equal second, Mr. A. Henderson, Trentham Gardens, and Mr. Young, gardener to W. H. Stone, Esq., Havant, Hants. Some three or four other collections were also staged.

With four fruits of Pine Apple, Mr. Young, gardener to C. Bailey, Esq., Aberdare, was first, having a brace each of Providence and Queens, the former being of large size. Second, Mr. Bailey, gardener to E. T. Drake, Esq., Shardeloes. With a single fruit of Providence Pine, Mr. Cawke, gardener to G. Riddell, Esq., Rotherham, Yorks, was first, having a splendid fruit weighing 8 lbs. 3 ozs. Second, Mr. M. Henderson, Cole Orton Hall, Ashby-de-la-Zouch, his fruit weighing 7½ lbs. With a single fruit of Queen, Mr. C. Smith, gardener to A. Anderson, Esq., Norwood Grove; and Mr. Chalmers, gardener to Sir R. Peel, Bart., Drayton Manor, Tamworth, were equal first with remarkably fine fruit; and so good was the competition that four equal second prizes were awarded to Mr. T. Young, gardener to C. Bailey, Esq., Aberdare; Mr. Smith, gardener to J. Walker, Esq., Liverpool; Mr. Moore, gardener to J. Wall, Esq., Bristol; and Mr. Speed, gardener to Sir E. Walker, Mansfield, Notts. In the Class for any other fruit but Queens appeared good specimens of Prickly Cayenne, Enville, Black Prince, &c.

As usual, a large quantity of Melons were staged, and the fruit in which incisions had been made by the Judges looked provokingly tempting on that hot summer afternoon. A hybrid Persian from Mr. Meredith, of Garston, Liverpool, was the best in the Green-fleshed Class; and Mr. Tegg, gardener to Baron Hambro' Rochampton, was second with King's Green-flesh. With Scarlet-fleshed fruit, Mr. Chilman, gardener to Mrs. Smith, Epsom, was first with Turner's Gem. Second, Mr. Mounsdon, Moreton Hall, Congleton, with one named Moreton Hall.

Fruiting trees in pots of Peaches, Pears, Cherries, Figs, Apples, and Plums, were staged by Messrs. J. & J. Fraser, and H. Lane & Son.

Quo.

LAW AGAINST WEEDS.

IN Denmark the farmers are bound by law to destroy the Corn Marigold, and in France a farmer may sue his neighbour who neglects to eradicate the Thistles upon his land at the proper season. In Australia a similar regulation has been imposed by legislative authority, with, it is said, the most beneficial results. In Canada, we believe, enactments have been issued against allowing Thistles to ripen on the roadsides and exposed situations, both from the legislature and township corporations; and it is passing strange that such important and beneficial regulations, on the proper observance of which both private and public wealth is so closely dependant, should in many districts become practically inoperative. It is high time that some firm stand should be taken, not only against Thistles, but Pigeon Weed, and the whole tribe of farm pests of this nature, forming as they do insuperable barriers to agricultural progress, and, consequently, to the increase of wealth and national prosperity.

CALENDAR OF OPERATIONS.

CONSERVATORY.

WHILST the weather continues fine give plenty of air night and day. As the plants will now need all the light they can get, look carefully to the climbers. *Vallota purpurea* is a very useful and showy plant for the conservatory at this season. A few good plants

of this, with some good specimens of *Fuchsias*, *Salvias*, *Scarlet Geraniums*, *Double Petunias*, &c., will make the house gay. Attend well to the watering of the plants. Towards the end of the month preparations should be made for housing the plants. Have the house thoroughly cleaned before the plants are got in.

As long as the weather continues fine the plants will do best out of doors; but if it set in wet or frosty the plants will be better under cover. See that every plant is thoroughly clean and neatly staked before it is taken in. After they are housed give abundance of air in fine weather, and attend carefully to the watering.

GREENHOUSES.

HARDWOODED PLANTS.—Give air freely night and day as long as the weather continues fine. Get the houses thoroughly cleaned and repaired if wanted. Also see that the heating apparatus is in good working order before the plants are housed. Whilst the weather continues fine the plants may remain out; but as we very often have stormy weather about the 20th, it is better to have all the more tender plants housed before then. They should be well cleaned and neatly tied before they are taken into the house. See that the drainage is perfect. If a temporary structure of any kind could be erected to protect the more hardy plants until the end of October, it would give more room for the choicer kinds of plants. When the plants are all housed they can scarcely have too much air night and day in mild weather. Many of the plants, especially those in small pots, when staged and exposed to a thorough circulation of air, will dry very rapidly. Watering must, therefore, be well attended to.

SOFTWOODED PLANTS.—*Pelargoniums*.—Those shaken out and put into small pots last month will now be making fresh roots freely, and will require a shift before the roots get too matted. Use a compost of turfy loam and rotten dung, with a little sand. After they are potted they will not require much watering for a little time, but they should have all the air possible. Those cut back last month should at once have all the soil shaken from them, and be put into smaller pots and treated as the earlier ones. *Cinerarias*.—Continue to shift all plants that require it into larger pots. Set them thin, that they may have a free circulation of air about them. Water carefully, and give plenty of air. *Calceolarias*.—When the suckers that were potted-off last month begin to fill their pots with roots, they should have a shift into larger ones. Shift seedlings as they require it. Water carefully in the forenoon, and give plenty of air in mild weather. *Fuchsias*.—The early-flowering plants that are done blooming should now be kept rather dry and be left to go to rest. Let them have full exposure to sun and air to ripen the wood. Attend well to the watering of plants in flower. Put in cuttings.

STOVE.

Maintain a drier atmosphere, and give plenty of air in fine weather that the young growths of the plants may get properly matured before the winter. Water carefully, and it should be done in the mornings that it may evaporate before the house is closed. All plants should now be got into their winter quarters, and they should be set sufficiently apart for the air to pass freely around them, and let the finest specimens have the best places. Pot-off all cuttings that are rooted, that they may get established before the winter.

FLOWER GARDEN.

Go daily over all the beds and pick off all faded flowers and dead leaves, and trim and regulate all rambling shoots. Keep all the edgings in proper order. Mow the grass frequently. Sweep and roll the walks, and spare no pains to keep all things in order. Push forward the propagation of all "bedding-out" plants as quickly as possible. Scarlet and other Geraniums that are rooted should be potted-off at once and kept rather close for a week or two until they begin to root into the fresh soil, when they should be exposed as much as possible to harden them for the winter. Plant out rooted cuttings of hardy perennials. Sow at the beginning of the month hardy annuals for spring-flowering. *Pleasure Grounds*.—This is an excellent time to plant evergreens. Attend regularly to the mowing of the lawns and the sweeping and rolling of the walks.

FORCING.

FRUIT.—*Fine Apples*.—If the plants bearing fruit for the autumn and winter supply have been all got together in one house, as recommended last month,

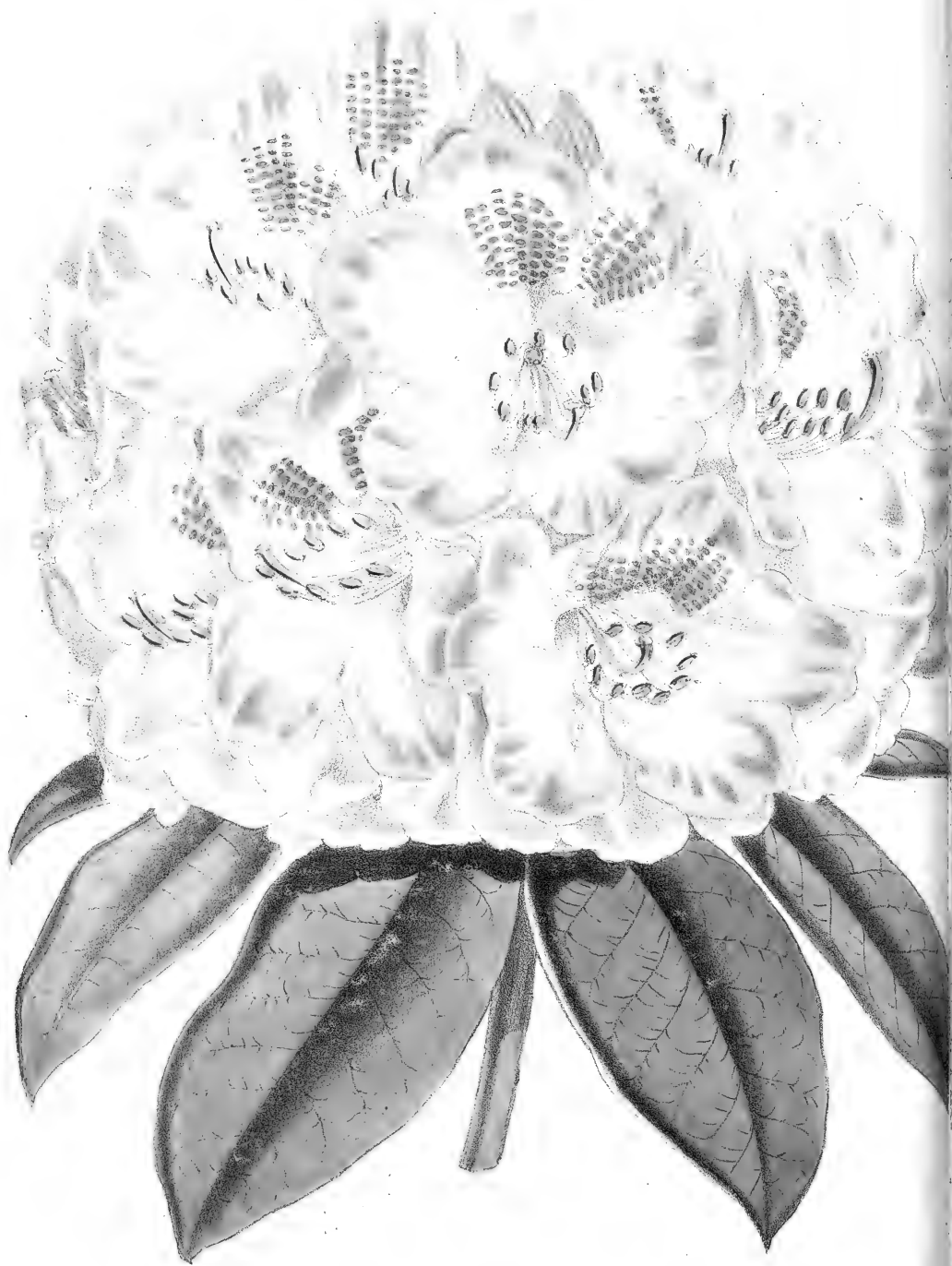
they can now have proper attention. They should have a high and rather moist temperature, with a bottom heat of from 80° to 85°, and a top heat of from 70° to 75° at night and from 80° to 90° by day. They should have liberal supplies of water until the fruit approach maturity, when it should be withheld. The plants for early fruit next season should now be put into their winter quarters. Renew in part or entirely the materials for bottom heat if it be not supplied by pipes, and plunge the plants, allowing a good space between them, and take care to keep them near the glass. See the bottom heat on no account exceeds 90°, otherwise it will do serious injury. Give the plants liberal supplies of water. Ventilate freely in fine weather, and keep a night temperature of about 70°. Give succession plants plenty of air in fine weather and liberal supplies of water, and see they have a bottom heat of about 85°. *Fines*.—Those in the early-house should now be pruned. In all houses where the crops are cleared endeavour to get the wood well matured. In houses where Grapes are ripening give plenty of air, and in wet weather fire heat will be necessary. Vineries containing ripe Grapes must be kept cool and dry. *Peaches and Nectarines*.—Remove the sashes off the late-house, and whilst they are off they may be painted if they require it. Give the trees full exposure to sun and air. When the leaves on the trees in the early-house begin to lose hold, draw a broom lightly over the shoots. This will remove the leaves, which can then be gathered, and the house can be made clean. *Figs*.—Water must now be given sparingly, otherwise the tree will continue growing too late and the wood will not get properly ripened. Ventilate freely night and day. *Cherries*.—Shift any that may require it. *Strawberries*.—Attend well to the watering of these, and pinch off all runners as they appear. *Melons*.—Withhold water from fruit that is ripening. Keep a steady bottom heat of 84° to plants that are swelling their fruit. Water freely when they require it, and give plenty of air. Do not let the shoots get crowded. *Cucumbers*.—Pay every attention to late Cucumber plants, that they may get a strong vigorous growth before the winter. Give them abundance of air in fine weather, and liberal supplies of water when they require it. If wet weather should set in, a little fire heat will be necessary to keep the night temperature from falling below 65°. Pay great attention to the bottom heat, which may range from 80° to 85°. Plants in bearing should have liberal supplies of manure water.

HARDY FRUIT.

Attend carefully to the protection of all ripening fruit, and to the gathering of it when fit. Earwigs, wasps, flies, and woodlice are great pests to ripening fruit, and if not destroyed will generally spoil the finest: therefore spare no pains to trap and destroy them. Look frequently over ripening fruit, and turn aside any leaves that shade it. Gather fruit in dry weather, and remove them carefully from the tree by lifting each fruit gently upwards. Go over all the wall trees, and nail-in or pinch off all shoots that require it. *Strawberries*.—Make fresh plants and cut off all runners if not already done.

KITCHEN GARDEN.

Hoe and stir the soil between the crops in dry weather. Attend regularly to the earthing-up of Celery, also to the blanching of Lettuces and Endive. Thin Winter Spinach, and hoe between the rows. *Potatoes*.—Take up in dry weather and store away when fit, taking care to put none away that are diseased. *Cauliflowers*.—Those sown in August should be pricked-out into frames and on sheltered borders, about 3 inches apart, to stand over the winter. *Onions*.—Take up, dry, and when fit strap them and hang them where they can have plenty of air and where they can be kept safe from frost. *Parsley*.—That sown early, if cut back at the beginning of the month, will soon make fresh growth, which will stand the winter better than the first growth, which is generally too succulent. *Late Turnips*.—Thin well, and keep the ground between the rows well stirred. Clear away all decaying crops, and keep every place as clean as possible.—M. S.



Standish's Perfection Rhododendron .

RHODODENDRON STANDISH'S PERFECTION.

WITH AN ILLUSTRATION.

As a hardy evergreen free-flowering shrub, alike welcome in town and country, the *Rhododendron* needs from us no recommendation. It has an established reputation; and no one who has seen the "American Shows" of the metropolis, wherein *Rhododendrons* are dominant, will hesitate to admit that it is one of the most glorious of our garden ornaments.

Of late years much has been done, by careful crossing and selecting, to improve the character of this most valuable shrub; and Mr. Standish, of Ascot, who has raised the subject of our plate, has been one of the most successful workers in the field of improvement. The *Rhododendron* called STANDISH'S PERFECTION, of which we now give a figure by Fitch, is a proof of this statement.

This variety is sturdy and vigorous in habit, and produces fine trusses of blossoms; but the most remarkable feature of the plant is the substance and perfect form of the individual blossoms themselves, to which a colouring, at the same time delicate and striking, imparts an additional charm. The colouring is indeed most lovely—a kind of lilac rose melting away into a white centre, the upper segments being also richly spotted. It is one of Mr. Standish's productions, and may be pronounced one of the finest acquisitions in the shape of a hardy *Rhododendron* which have yet been obtained.

As a selection of good hardy *Rhododendrons* we may mention the following—

Amilcar, deep violet purple with black spots.

Rather early.

Blandjanum, deep rose scarlet. Rather early.

Brilliant, scarlet crimson. Rather early.

Bylsianum, blush, with rosy margin.

Concessum, deep rose, with white centre.

Comtesse de Morello, clear rose, with pale centre.

John Waterer, rich crimson.

Lady Emily Cathcart, pale rose, very heavily spotted.

Lady Bowring, shaded rosy pink, finely spotted.

Limbatum, pale blush, bordered with bright crimson. Rather early.

Maculosissimum, pale rose, spotted all over with black. Rather early.

Minnie, white, with large blotch of chocolate spots.

Mrs. Standish, pure white, with brownish-yellow spots.

Moonbeam, very pure white. Effective.

Neilsoni, rosy lake. Fine.

Ochroleucum, creamy white; the upper segment spotted with green.

Striatum formosissimum, rose scarlet, heavily spotted, the spots ranged in lines.

The Colonel, deep crimson.

The conditions most favourable to *Rhododendrons* are a peaty soil and a rather moist situation; but they will grow well enough even when these conditions are not fulfilled. Indeed the most unsuitable of soils may without much trouble be made suitable for them. Mr. Standish recommends a compost of two parts sandy loam or peat, or, in fact, any sandy soil that does not contain much chalk or lime (which American plants dislike), one part of leaf mould, one half part of sand, and one half part of rotten manure. This to be well incorporated, and, if possible, laid in a heap a twelvemonth before using, during which time it is to be two or three times turned over and intermixed. In such a compost they will grow readily; and, beyond this, the chief consideration is never to let them get dry at the root.

THE GLADIOLI.

From almost all parts of the country I hear complaints respecting a disease in the *Gladiolus*, and may entertain fear that their bulbs will suffer in

consequence; and some go so far as to liken the so-called disease to that which affects the Potato. Unlike the Potato disease, however, the root of the *Gladiolus* fortunately does not appear to suffer from the premature decay of the foliage and stalk; and I am much inclined to think it is no disease at all, but is to be attributed to some other cause connected with their culture. I have four beds of *Gladioli*, two of which consist of fine sorts, nearly the whole of which are imported roots from France, and amongst which are a very large proportion of failures. I mean by failures that in some cases they made growth early as usual, but it soon died away; whilst many others matured their growth until July, and then turned brown; and at last the foliage and stalk had a very decayed appearance and produced no flower. Close by is a large bed of *Brenchleyensis*, the foliage of which is partially decayed, but they are blooming. The fourth bed consists of a quantity of seedlings and offsets of my own growth, which look well.

"What is the reason why my *Gladioli* have failed so?" is now an everyday question, and really we ought to try and settle it. Some say it is because the summer has been too dry for them, and I think to some extent this argument will hold good, but does not wholly account for this premature decay. That the *Gladiolus* loves good living I have not the shadow of a doubt. I have always used very rotten manure, and find they like it; and they like a deep soil, too, in which the manure can be well incorporated, and I shall presently speak of other little matters I know they like. Let us first, however, try to make out the cause of this early decay and great disappointment.

With the very hot summer days we have experienced, we have also encountered unusually cold nights, and now and then frost. Have these sudden changes of temperature from extreme heat to decided cold in any way affected the *Gladiolus*? If so, why are not my seedlings and offsets affected like the two best beds? I am very much inclined to think there is a greater mortality amongst the imported roots brought from the warmer soil of France than amongst those of English growth. Mind, I do not wish, or even expect this to be accepted as fact, but that is my impression, and has been so for two years. Now is the time to decide whether I am correct or not in this view, as cultivators will easily be able to tell whether newly-purchased roots have suffered more than roots they grew the previous year.

They are capital growers of the *Gladiolus* about Dublin, and I recently had occasion to be in Ireland, and saw the display of *Gladiolus* at the Autumn Show of the Royal Horticultural Society. The silver cup was carried off by J. F. Lombard, Esq., who has probably the finest collection in Ireland; and as his flowers were very fine, highly coloured, large, and firm, I was anxious to see his growth; so got invited to see his garden, and found my time profitably employed. Mr. Lombard decidedly adopts feeding, and not only applies rotten manure to the soil, but freely applies liquid manure also. He also applies the syringe very freely until the blooms expand, and I never saw stronger and healthier growth. True, he had some failures, here and there premature decay, and, like all other growers, some roots which failed to push at all; but his beds were singularly healthy compared with many I have seen this side the Channel. It will also be well to remark here that Mr. Lombard does not shade, but has the spikes firmly secured to strips of list stretched between tall stakes, so that the flowers are uninjured, and still have the benefit of full exposure to light, which necessarily intensifies colour. I attach much importance to the repeated syringings, and believe they lose moisture when accompanied by good drainage. I also saw the collection grown by J. W. Lane, Esq., who took the second prize at the Dublin Exhibition, and there were several instances of premature decay in his beds, although remarkably good

growth generally. We examined some, the tops of which had died away, and found the roots perfectly sound.

I think it was in a recent Number of the *Journal of Horticulture* I saw the failure attributed to the imperfect ripening of the roots last autumn; but as I have several thousand seedlings, and small roots, and offsets of last year's home growth looking well, I am not inclined to attach undue importance to this theory; but, still, I so thoroughly feel the justice of the argument that I mean to protect my beds through the autumn, by putting over them the iron framework and covers I use for Tulip-beds. I think the drier and warmer the roots are now kept the better the bulbs will swell and mature themselves. No more water for this year; and if I could apply warmth underneath them, I would do anything to assist the roots in early attaining maturity. In cold wet districts especially this protection is, I am persuaded, most desirable. We shall, in all probability, have a wet autumn after so much dry weather; if so, the bulbs will run small generally. I hope these few remarks will bring out other more matured expressions of opinion on the failure in the *Gladiolus* this year, for the flower is becoming so universally popular that all difficulties in the way of its successful culture should be removed.

Shipley.

WILLIAM DEAN.

COVERING VINE-BORDERS.

In reply to a correspondent who signs himself "Yorick," we furnish for his, and the benefit of our readers generally, the following particulars on covering Vine-borders:—

"Yorick" has come for advice at the very time we are moving in this ourselves; and taking a vinery of Black Hamburgs, apparently in the same stage, we are applying a thorough coating of the very best farmyard manure, which we got by waiting until the rough is taken off, securing the short at the bottom, no matter how green or full of moisture. This was wheeled upon the border on the 17th of last month, and forked gently in with a "Parker's" digging-fork. Where the roots are come in contact with, the fork is worked about to get a little manure under; and if it is not covered, at least a little fresh soil is put all over; but when the roots are near the surface great care is required. Where this is not the case, if no fresh soil can be added, the dung is best well dug-in. We have frequently used fresh horse-droppings on cold wet borders with the best effect, but to go back to the forking-in as finished. We leave the border in this state up to the end of October, when we invariably put a good covering of dry fern. If this is not to be obtained in quantity, we would cover over the surface, and put long litter or straw on the top; and, if there is none to be got, put first a covering of branches over the soil, and thatch them over; but in no instance, if it can be avoided, put long dung or wet leaves in contact with the soil, which it sours, and in many cases is the commencement of stagnant borders. Fern is by far the best covering upon soil that we know of; besides keeping the border dry, it allows the air to circulate all over the surface.

In the time between this and the end of October the rain will have settled down the surface, and carried some of the essence of the manure to the roots, which will be useful in the winter months, when they are laying in a store for the coming movement. By the time the covering is removed in spring, the dung is incorporated with the soil, and will keep on adding nourishment to the roots for the season.

Shutters and glass lights we do not consider so good, unless under very

exceptional circumstances, as newly-planted Vines, with a mass of fresh soil, and perhaps manure, which soon gets sodden from wet.

The Muscats should be planted as close to the hot end of the house as possible. Two of Bowood would be better than the Alexandria; the former sets more freely in cold or medium houses, and ripens with less heat; it has besides the great property of not shanking—at least it has not done so with us in any late houses when the other has done.

Woodlice are great pests in either frames or houses. We have tried poison in different forms, but without seeing much difference in the numbers. Our practice is to take a 48-pot, stopping the hole, and putting inside several slices of potato; over this a handful of loose hay. We then place near a jar of water, and every time the young men go through, or by, to give air, &c., they are emptied into the water. They are partial to potatoes, and if one is hollowed-out and placed near they will shortly fill it. A good preventive is to keep the sides of the frame firmly trod, and all the dung in the frame well covered.

J. F.

CONCERNING NEW HYACINTHS.

THE exhibition of new Hyacinths at the Spring Shows of the Horticultural Society has set me thinking about the matter, just because what constitutes a new Hyacinth is so very indefinite in the absence of any official information to that effect. The age beyond which Roses, Dahlias, Pelargoniums, Azaleas, and other plants and flowers cease to be considered new is to some extent defined, either by usage, or else a stated period is named on the schedule of prizes. But in relation to the Hyacinth it seems to be left entirely to the exhibitor to stage what he pleases as new varieties, and the Judges give their awards to the best spikes quite irrespective of the claims of novelty and newness; and this, simply because they cannot have any accurate knowledge of the age of the flowers they are called upon to judge.

At the Spring Show of Hyacinths held in the Royal Horticultural Society's Gardens on the 18th of March last, three groups of Hyacinths were staged in the Class for six new varieties, the exhibitors being Mr. William Paul, of Waltham Cross; Messrs. Cutbush & Son, the well-known Hyacinth-growers of Highgate; and Mr. W. Young, gardener to R. Barclay, Esq., of Highgate, one of the best amateur growers of Hyacinths round London. Mr. W. Paul, who was placed first, had Florence Nightingale, Lord Macaulay, Koh-i-noor, and Due de Malakoff, single reds; Haydn, single mauve; and Snowball, single white. There was no intimation as to the age of these flowers appended to the stand. I remark here that there are two varieties of Florence Nightingale, single red, extant; the one raised by Messrs. Veen, Brothers, of Haarlem, and in colour red; the other, a rose-coloured variety, raised, or if not raised, at least sent out by Messrs. Byvoet, Brothers, also of Haarlem. It was this last variety that Mr. Paul had in his collection.

Messrs. Cutbush & Son had five varieties labelled as "new of 1863"—viz, Rouge Eclatante, double red; Feruk Khan, single blue; Maria Theresa, single red; Fair Maid of Denmark, single white; and San Francisco, single yellow; and one other variety without any statement of age—namely, Prince of Orange, single red. It would seem that Maria Theresa was staged inadvertently. Mr. James Cutbush, who was unable personally to superintend the arrangement of his Hyacinths, told me that he had intended that Estella, double red, should have been staged as one of the six new varieties, instead of which Maria Theresa was substituted for it. Also Mr. Cutbush and his foreman

both assured me that Estella was one of the six. I can only say that the reports of the Show that appeared in the *Gardeners' Chronicle* and the *Journal of Horticulture* gave the same names as constituting the group as I did in the *FLORIST AND POMOLOGIST*, Maria Theresa being one of them. Even if Estella had been staged with the name of Maria Theresa appended to it, surely the Judges could not fail to have detected that it was a double flower, even supposing it escaped the notice of the writers of the reports alluded to. Mr. Young had Lord Macaulay, Victoria Alexandrina, Reine des Jacinthes, and Von Schiller, single reds; Paix de l'Europe, single white, and Regulus, single blue. The second and third awards were made in the order that I have placed the names of the exhibitors.

I confess that a consideration of stands, coupled with what I had witnessed in the spring previously, tended much to deepen the impression already present with me, that the exhibition of new Hyacinths rested on a very unsatisfactory basis. I therefore set to work to ascertain as correctly as I could how long a time these Hyacinths had been known to the trade in England through the lists of the Dutch growers; and, failing that, when they first became known to some of our Hyacinth-growers and exhibitors.

I applied to Mr. James Cutbush and got from him the following return:— Maria Theresa, very old; Regulus, old; Florence Nightingale and Von Schiller, in 1857, the last possibly earlier; Koh-i-noor, in 1859; Victoria Alexandrina, Reine des Jacinthes, Haydn, and Snowball, in 1860; Lord Macaulay, Duc de Malakoff, and Paix de l'Europe, in 1862; Prince of Orange, Feruk Khan, Fair Maid of Denmark, San Francisco, Estella, and Rouge Eclatante, in 1863. I should think this return must refer to the year in which Mr. Cutbush first exhibited them, and that he thus judges of the age of the list of varieties I sent to him: therefore their real age must date back yet earlier. I had Rouge Eclatante in flower at the same time as Mr. Cutbush exhibited it as new of 1863. My variety was identical in every respect with his, and I must confess I was surprised to find it staged as a novelty, having observed it in the Dutch lists for two or three years previously.

Mr. Paul's return led me to infer that it was only very recently that he had turned his attention to the Hyacinth. He puts Lord Macaulay, Von Schiller, and Regulus as connected by his knowledge with the year 1860; Florence Nightingale and Koh-i-noor, with 1861; Duc de Malakoff, Victoria Alexandrina, Reine des Jacinthes, Prince of Orange, Haydn, Snowball, and Paix de l'Europe, with 1862; Rouge Eclatante, Maria Theresa, Feruk Khan, Fair Maid of Denmark, and San Francisco, with 1863. It will be seen by implication, that Mr. W. Paul bears testimony to the fact that Maria Theresa was one of the flowers staged in Mr. Cutbush's stand, as he quotes it as new of 1863.

I also applied to Mr. A. Fraser, the manager of the bulb department of Messrs. James Carter & Co., of Holborn. His dates have reference to the time that he has known the flowers. It will be seen that his return applies only to a portion of the varieties, as he had not seen those omitted. He returns Von Schiller and Rouge Eclatante at five years; Reine des Jacinthes and Florence Nightingale at three years; Macaulay, Koh-i-noor, and Regulus at two years; Haydn and Snowball at one year.

The want of harmony among these returns could not furnish me with any reliable data by means of which to put the subject under discussion in a more intelligible aspect, so I then applied to three of the largest growers at Haarlem, and solicited their assistance. The information conveyed to me by the first to whom I made application is hardly so clear as I could have wished: still I give it. The writer states, "I hope to return an answer to your purpose by

making a reciprocal comparison of the sorts you name. Thus: Fair Maid of Denmark and San Francisco may be considered as the newest and, as yet, scarcest Hyacinths. Next in novelty are Florence Nightingale (I mean the rose-coloured one of a very large and handsome spike, not the red one, which is much smaller in size), Feruk Khan, Haydn, Duc de Malakoff, Snowball, and Reine des Jacinthes. Older than these, or longer known, are Lord Macaulay, Koh-i-noor, Von Schiller, Victoria Alexandrina, Prince of Orange, and Paix de l'Europe. Rouge Eclatante, although being of an older date than any of the above, is still very scarce. Maria Theresa and Regulus can be considered as old sorts in comparison to the above, having been exported in quantities during more than half a dozen years."

Another has given me his return according to the number of years the varieties have been quoted to the English dealers in the Dutch lists. This one is somewhat remarkable when taken in comparison with those I have already given. Rouge Eclatante and Victoria Alexandrina, twelve years; Von Schiller, ten years; Paix de l'Europe, eight years; Lord Macaulay, Florence Nightingale (the red variety), and Regulus, six years; Koh-i-noor and Prince of Orange, five years; Reine des Jacinthes, four years; Estella, Duc de Malakoff, and Haydn, three years; Snowball and Feruk Khan, two years; Fair Maid of Denmark and San Francisco, not known.

My third and last continental return goes more into details, and in point of information is the most valuable. From this I find that Rouge Eclatante was raised by Messrs. Veen, Brothers, and quoted in their catalogue for the first time in 1833. The red variety of Florence Nightingale was named by Mr. J. H. Veen, and appeared in his catalogue for the first time in 1858; Lord Macaulay was also raised by Messrs. Veen, Brothers, and sold by them for the first time in 1855; Koh-i-noor, by some styled a double red, but more generally known as a single flower, was raised by the same firm, and appeared in 1855 with the previous variety; Duc de Malakoff, single yellow or single red, but more properly the former, was raised by Mr. W. Kramer in 1857, and sold in 1858 for exportation; Von Schiller was also raised by Messrs. Veen, Brothers, and quoted by them for the first time in 1853; Victoria Alexandrina was raised by Mr. Van Pallandt, and quoted by him in his catalogue for the first time in 1839; Reine des Jacinthes was raised by Messrs. V. Schertzer & Son, and appeared for the first time in their catalogue in 1861; Prince of Orange, single red (like Koh-i-noor, sometimes quoted as a double red, many of the bells coming semi-double), was raised by Messrs. E. H. Krelage & Son, and was catalogued by them for the first time in 1856; Maria Theresa was raised by M. Van der Vinne, and sold by him for the first time in 1847; Feruk Khan was raised by Messrs. Kramer, and sold by them in 1858 for exportation; Haydn was raised by the same firm, and appeared with the foregoing in 1858; Regulus was first quoted by Messrs. Job Rosenkertz & Son in 1847, and in 1850 had found a place in all the Dutch lists; Snowball was raised by Mr. A. H. Prinser, and sold by him as early as 1852, and subsequently the stock of it was sold to Messrs. Byvoet, Brothers; Paix de l'Europe was also raised by Messrs. E. H. Krelage & Sons, and appeared in their catalogue in 1856. Fair Maid of Denmark and San Francisco are unknown to the writer of these notes. It is presumed that the stock of these varieties is entirely in the hands of Messrs. Byvoet, from whom Mr. Cutbush received them. I omitted to include Estella in this list.

In the face of this, what does constitute a new Hyacinth in relation to their exhibition? Or, who shall venture to prescribe the exact age after which they should cease to be considered as new varieties? Supposing this to be done, how are the Judges who were deputed to make the awards at the last Show to

get the information as to the exact age of the flowers staged? It were next to impossible to obtain this accurately, in the case where the flowers are all of foreign production.

Then, there must not be omitted from consideration the slowness of the Hyacinth to propagate itself. One of my Dutch correspondents thus alludes to this fact:—"Some of the new sorts increase rapidly, and are soon offered to the trade; other sorts, although not advancing much at first, take it up at once, and now begin to propagate fairly, sometimes even after having been stationary for many years; other sorts again, and amongst them are very fine ones, never appear to increase at any reasonable rate: hence, it often occurs that Hyacinths, although being older than other sorts, are introduced as new flowers a long while after Hyacinths of a lesser age have got known as leading sorts."

The best solution of the problem would be, to permit exhibitors to stage what they please as new kinds; but those who are appointed to judge the flowers should be selected from the leading wholesale houses in London, who have extensive connections with the Dutch trade, and come into personal contact with the heads of the same when here on business matters. Intelligent men who have no mean knowledge of the Hyacinth, and who have been familiar with the Dutch root-lists for years can be found, who receive every year from the Haarlem houses a large quantity of spikes of flowers at the blooming season, and are thus posted-up in all the leading kinds by an annual contact with them. Judges who are quite at home among Dahlias, Pelargoniums, Roses, and other popular flowers, are badly at sea when called upon to decide on the merits of stands of Hyacinths, where the age of the flower has to be largely considered. They see them only at our spring shows, and this at long intervals—too long to admit of the memory retaining the impressions of the previous year, so short is the term of acquaintance.

The Hyacinth is a flower that deserves a greater prominence than it now occupies at our spring shows. More generally grown, perhaps, than any other spring flower, it is only in connection with the Horticultural Society that prizes are offered for stands of six or twelve varieties. It surely deserves a wider and larger recognition; and I trust that this is in store for it at no distant date.

Quo.

ROSES.

(Continued from page 124.)

I MAKE NO apology for a Rose contribution, for Simonides could not perfect his epigram on Sophocles without introducing them into his chaste panegyric of that great bard:—

"Wind, gentle evergreen, to form a shade
Around the tomb where Sophocles is laid:
Sweet Ivy wind thy boughs, and intertwine
With blushing Roses and the clust'ring Vine;
Thus will thy lasting leaves, with beauties hung,
Prove grateful emblems of the lays he sung."

First. *Summer Roses Omitted in the Last Article.*—Charles Lawson and Triomphe de Jaussens.

Secondly. *Roses Since Proven.*—Olivier Delhomme, scarlet crimson, with thick and smooth petals. Of good form and habit.

Thirdly. *Roses Previously Spoken of that Have Bloomed Lately and Beautifully.*—Beauty of Waltham, Maréchal Vaillant, Le Rhône, Turenne, Professor Koch, and Madame Boutin.

Fourthly. *Roses of 1863 not yet Spoken of.*

1. *Mrs. W. Paul.*—This is a beautiful first-class Rose. Its colour here was different from that in the *FLORIST AND POMOLOGIST*, and also from that sent me by Mr. W. Paul to-day, together with beautiful blooms of Lord Macaulay and Mr. W. Paul. Soil and exposure to sun and dews, no doubt, make the difference. My plant is in a west aspect, and has a thick awning of Ivy hanging over it and shielding it from dews, which will account for its brightness. Its colour here was bright lustrous velvety crimson, with fiery scarlet in the centre. It is finely shaped, and very radiant and beautiful. The petals are thick, and colour lasting. It lives and dies well. It produces single blooms. The centre of my blooms was exactly like that in the *FLORIST AND POMOLOGIST*, but the purple from the above reasons was absent. Vilmorin sent me this Rose with others. At first I fancied it was Mr. W. Paul, as it answered to his colour; but I believe it to be correctly sent. The bloom sent to me by Mr. W. Paul was of the same colour as the one in the *FLORIST AND POMOLOGIST*; but not so like it as mine as regards the peculiar centre. As correctness is desirable, I wrote to Mr. W. Paul, and he makes this observation: "New Roses vary so much the first year that it is barely safe to trust to a description." Roses vary as to colour according to heat and moisture. Take an instance: Alphonse Damaizin is, in dry summer weather, a radiant scarlet red; but in September and October I have seen it as clarety as Maria Portemer, the formation of both being much alike.

2. *Madame Brianson.*—This Rose, together with *Sœur des Anges*, is considered in France to hold a high position. I regret that three buds which are upon opening are not sufficiently open to describe the Rose fully. The colour is fine, and the petals are of great substance: it has the appearance of being a very superior Rose. The growth and foliage are good.

3. *Madame Alfred de Rougemont* is French white, with roseated reverse to the outside petals. It is a Perpetual Acidalie. It is well formed, and valuable for its colour and continuous blooming.

These are all of the infant Roses of 1863 that are likely to bloom here this year. For, soon

"In eager haste the village urchins go
To hunt the hedges for the purple Sloe."

Rushton.

W. F. RADCLYFFE.

BELLE DE SEPTEMBRE PLUM.

WITH AN ILLUSTRATION.

SYNONYMES.—*Reina Nova*; *Gros Rouge de Septembre*.

THIS is one of our handsomest late Plums. Whether as a standard or a dwarf it is equally ornamental, but particularly so as a dwarf, in which form we have seen very small trees studded all over with the gay and brilliant fruit, of which our plate is the representation. The fruit is large, oval, even, and regular in its outline, and marked with a very slight suture on one side, sometimes so slight as to be a mere line. The skin is bright red, covered with a delicate violet bloom. Stalk half an inch long, thin, and smooth. Flesh yellowish-white, firm, juicy, sweet, and somewhat aromatic, and adhering rather to the stone.

This is a first-rate Plum for cooking or preserving, and furnishes a fine crimson juice or syrup. It ripens in the end of September, or in the beginning or middle of October.

The tree is an abundant bearer, and the young shoots are downy.



Belle de Septembre Plum.

THE METROPOLITAN EXHIBITIONS.

THE announcement of the holding of the two great fruit festivals heralded the close of the exhibition season. I took my farewell of the Crystal Palace on Tuesday, September 1st, for this year, on the occasion of its autumn Fruit and Flower Show. It was a lovely day, and then the appearance of the grounds of the Palace in the bright sunshine of the early morning was beautiful indeed. The invigorating showers that had recently fallen, so long looked and hoped for, had given a rejuvenescent aspect to the parched parterre and the scorched lawn: the former had dressed itself in its gayest attire, the latter in its most refreshing hue.

Passing along by these the Palace was reached, and as usual, at an early hour all was in confusion. It was the acme of disorder from which order was gradually but surely proceeding. One arm of the nave contained the fruit, the other was a lodgment for the cut flowers. There was nothing scarce in the fruit department; every kind that had a place in the schedule was present in lavish ostentation, and of high quality. This could not be said of the cut flowers, for the Gladiolus, the Hollyhock, and the Rose, were but sparsely represented. Of the former, three stands only of twenty-four varieties were staged, and but one large collection. The dry weather has told upon them sadly in the south and west of England, whole beds having been well-nigh decimated by a kind of rot engendered by the drought, that would seize on many of the plants as the spike was being developed, and in one night they would become withered.

With a stand of twenty-four varieties, Mr. Standish, of Bagshot, was first with The Dauphin, Scottish Chief, and Lady Palmerston; bright scarlet flowers with either lemon, purple, or violet markings. The next division was composed of the following varieties, having shades of rose, carmine, and salmon, with purple, lemon, and violet markings:—Umpire, Souvenir, Reindeer, Mr. Peach, Cornuta, William Duffield, Boadicea, Aurelian, and Ruby. The next group ranged from pale bright carmine and rose to pure white, and having beautiful purple and lemon pencillings:—Reine Victoria, Cordelia, Edith Dombtrain, Mr. Dix, Emileta, Julia, Rowena, Carlotta Patti, Susan Inglis, and Lady Stamford. Some few others had an individuality of their own, such as Empress Eugénie, dashed and streaked with rosy violet on a light ground—a very novel and showy flower, a French hybrid Mr. Standish informed me: Tippoo Saib, orange and salmon, with carmine streaks and purple markings. The four most striking varieties were Cornuta, bright fiery carmine; Scottish Chief, rich bright scarlet, with rosy crimson and violet markings; Empress Eugénie; and Tippoo Saib. Second, Messrs. Youell & Co., Great Yarmouth, with Napoleon III, John Bull, Comte de Morny, Velleda, Clemence Improved, Hébé, Jeanne d'Arc, Lune, and P. Lindley, Superbum, George Stephenson (bright rosy carmine, with lemon and purple markings), Madame de Vetry, Madame E. Verdier, Madame Souchet, El Dorado, Madame Victor Verdier, Bertha Rabourdin, Achille, Reine Victoria, Le Poussin, Madame Leseble, Mr. Youell, and Duc de Malakoff. Third, Mr. Cattell, of Westerham, who had good examples of Achille, Fanny Rouget, Isolinc, Brencchleyensis, Madame Leseble, Penelope, Don Juan, Solfaterre, Jeanne d'Arc, Velleda, Pegasus, Galathé, Impératrice, Triomphe d'Enghien, Couranti fulgens, Sulphureus, and Magnificent. One collection only was staged by Messrs. Youell & Co., arranged in bunches of two and three spikes each, and having at each end a batch of the brilliant Brencchleyensis. The following were very fine,—viz.: Calendulaceus, Jeanne d'Arc, Madame Haquin, Othello, Laelia, Marie Dumortier, Le Poussin, Marie, Napoleon III., Pegasus, Velleda, Rembrandt, Madame Leseble, Penelope, Lenne, El Dorado, Ninon de l'Enclos, Raphael, Sulphureus, Neptune, Madame Adèle Souchet, Oracle, Hébé, President, Doumet, and Mazeppa.

Mr. R. H. Betteridge, of Abingdon, was first in each Class of Asters, quilled and flat-petalled. With the former, Mr. L. Besley, another Berkshire grower, was second, and Mr. Jennings was third. In the French Class, Messrs. Wyatt and C. Sandford who used to take the honours here, are now distanced by Mr. Betteridge. I did not think the Asters so fine as usual, they will perhaps be better at South Kensington next week.

Roses were poor, as might have been expected. Messrs. Paul & Son, of Cheshunt, were first with thirty-six and twenty-four varieties. In the case of the larger number the second and third prizes were withheld. With twenty-four kinds, Mr. Turner, of Slough, was second, and Mr. G. Clarke, of Brixton, third.

With twenty-four kinds of Verbenas, in bunches of five trusses each, Messrs. S. Perkins and Co., of Coventry, were first, third, and fourth; and Mr. C. J. Perry, Castle Bromwich, Birmingham, second. In their first stand, Messrs. Perkins had Colossus, Lord Leigh, and Fireball, all three so much alike that I could not detect any difference; Géant des Batailles, Ariosto Improved, Volunteer, Delicatissima, Ida, Foxhunter, Miss Field, Grand Eastern, The Moor, General Simpson, and Snowflake. Mr. Perry had different from the foregoing,

L'Avenir de Bellent, Magnificent, Les Adieux, Ruby King, Madame H. Steiger, Apollo, Cato, Rose Imperial, Sylph, Fairest of the Fair, and some seedlings.

Hollyhocks in twenty-four kinds, cut flowers, were furnished by Mr. W. Chater, of Saffron Walden; Messrs. Downie, Laird, & Laing, and Mr. J. J. Chater, of Cambridge, who were awarded prizes in the order of their names. Mr. W. Chater had Monmon, General Young, A. McKenzie, Invincible, Princess, Lucifer, Acme, Chrysolite, Joshua Clarke, Matchless, Lady Palmerston, Governor General, Lady Dacres, Queen Victoria, Princess of Wales, Illuminator, Beauty of Milford, La Dame Blanche, Warrior, Pericles, James Allison, Decision, and Cynthia. Messrs. Downie, Laird, & Laing, had Alexander Shearer, Golden Fleeco, Glory, Mrs. M. Binning, Purple Prince, Mrs. B. Cochran, R. B. Ullett, Countess of Craven, Mrs. Balfour, Lady Dacres, Aurora, Mrs. Chater, Empress Eugénie, Pre-eminent, Princess of Wales, Joshua Clarke, Yellow Defiance, Glory of Walden, Countess Russell, Lord Leigh, David Foulis, Prince of Hesse, George Keith, and Dr. Carey. In the Amateurs' Class, Mr. E. Hawke, of Gainsborough was first with David Foulis, Purple Prince, Premier, Lord Loughborough, R. B. Ullett, Queen Victoria, Mrs. Cochran, Prince Charlie, Joshua Clarke, Lord Leigh, and two others. Second, Mr. William Plester, gardener to Mrs. Rush, Elsenham Hall, with Tyrian Prince, Excelsior, Purple Perfection, Mont Blanc, Regalia, Joshua Clarke, Invincible, Mr. Chater, Splendens, Hon. Mrs. Ashley, Illuminator, and a seedling. Third, Mr. J. Forrester, Beckenham.

Dahlias were small and below the average quality of preceding Exhibitions. With forty-eight varieties, Mr. C. Turner was first with Charlotte Dorling, Lord Palmerston, Lady Popham, Lord Derby, General Jackson, Mauve Queen, Mrs. Boshell, Triomphe de Pecq, Andrew Dodds, Grand Master, Mrs. Vyse, Norfolk Hero, Juno, Chieftain, Earl of Shaftesbury, Volunteer, Miss Pressly, Mr. W. Pigott, British Triumph, Model, George Elliott, Etonia, Caractacus, Peri, Lord Eversley, Sydney Herbert, Una, Winfield Beauty, Tiger, Cygnet, Mr. Stocken, Lord Dundreary, Delicata, Criterion, Lord Cardigan, Dinorah, Hugh Miller, Bob Ridley, Umpire, Donald Beaton, Mr. Trotter, Beauty of Hilpert, Madge Wild-fire, Midnight, Count Cavour, and seedlings. Second, Mr. John Keynes, Salisbury, who had fine blooms of the following:—Norfolk Hero, Miss Henshaw, Cherub, Lord Russell, Lord Derby, Empress of India, Willie Austin, Edward Purchase, John Wyatt, Lord Shaftesbury, &c. Third, Mr. J. Cattell, Westerham; fourth, Mr. John Walker, Thame. With twenty-four varieties, Mr. Turner was again first with Lord Derby, A. Dodds, Umpire, Hugh Miller, Lady Popham, Triomphe de Pecq, Earl of Shaftesbury, Mr. Stocken, Cygnet, Charlotte Dorling, Beauty of Hilpert, Norfolk Hero, Lord Palmerston, General Jackson, Criterion, Lord Dundreary, Bob Ridley, Donald Beaton, Mrs. Henshaw, Midnight, Mrs. H. Vyse, George Elliott, and Mauve Queen. Second, Mr. J. Keynes; third, Messrs. Saltmarsh and Son, Chelmsford. With twelve Fancy Dahlias, Mr. Turner was also first, having Pluto, Queen Mab, Harlequin, Lady Paxton, Zebra, Rev. J. Dix, Summertide, Mrs. C. Kean, Garibaldi, Countess of Shelbourne, Pauline, and Queen. Second, Mr. Keynes; third, Mr. H. Legge, Edmonton. The Classes for Amateurs were very full, as many as twenty-seven stands being staged in Class 5 for twelve varieties. With twenty-four blooms Mr. H. Thorneycroft, Floore, near Weeden, was first, having Volunteer, Lady Elcho, Lady Franklin, Lord Canning, Peri, Juno, Criterion, Mrs. Church, John Dory, Umpire, British Triumph, Lord Derby, Chairman, Bravo, Vestile, Charles Waters, Mr. Boshell, Rosebud, Lord Palmerston, Lilac Queen, Mrs. W. Pigott, Lord Cardigan, and Lord Herbert. Second, Mr. J. Sladden, Ash-next-Sandwich, Kent; third, Rev. C. Fellowes, Shottesham Rectory, Norwich; fourth, Mr. C. J. Perry, Castle Bromwich, Birmingham. With twelve blooms, Mr. Thorneycroft was again first, having Lord Derby, Volunteer, British Triumph, Juno, Admiral Dundas, Beauty of Hilpert, Criterion, Chairman, Lady Popham, Hugh Miller, Lord Palmerston, and George Elliott. Second, Mr. Thomas Charlton, Leicester; third, Mr. J. Sladden; fourth, Mr. T. Wakeman, Eltham. With twelve Fancy kinds, the Rev. C. Fellowes was first, having The Flirt, Pauline, Queen Mab, Harlequin, Norah Creina, Fancy Queen, and seedlings. Second, Mr. J. Sladden; third, Mr. C. J. Perry.

As usual, a host of seedling Dahlias were staged; and, fearing to select a few and call them the best, I thought it best to describe as briefly as possible those that had some claim to merit. I did think there was scarcely a first-rate seedling flower shown, but, then, they were not in good character, and any judgment had better be suspended till they appear in better form. First came a veteran raiser, Mr. George Wheeler, of Warminster, who had two showy scarlet flowers, the one King of Sardinia, the other Watty. The last named was the largest and brightest flower. Mr. J. S. Burgess, of Chelsea, had Chelsea Hero, salmon buff, a flower of good substance. Mr. J. Collier, of Bethnal Green, had Princess Alexandra (Fancy), golden yellow, striped with red. Messrs. Bragg & Co., of Slough, produced Scarlet Gem, a finely-formed bright scarlet flower; and The Ranger, an orange scarlet of good substance. From Mr. Keynes, of Salisbury, were Willie Austin, golden buff, a flower of great promise; Anna Keynes, a light flower tipped with lilac; Fanny Purchase, a very showy bright canary yellow; Lady Lilian Paulet, a delicate flower, slightly tipped with lilac;

Edward Purchase, rich bright crimson, with finely formed petals and of good substance. John Wyatt, light crimson, shaded with violet; Fascination, a light flower heavily streaked with rosy crimson, quite novel, but wanting form.

The show of Fruit was extremely fine, the Plums especially being of best quality. The first prize for a collection of eight dishes was awarded to Mr. A. Henderson, Trentham Gardens, Staffordshire, who had Canon Hall Muscat and Black Hamburgh Grapes, the latter weighing 10 lbs. 11 ozs.; Pitmaston Orange Nectarines; Moorpark Apricots, and Barrington Peaches; Trentham Green-fleshed Melon; Morello Cherries; and an Enville Pine. Second, Mr. T. Bailey, of Shardeloes, Amersham, who had Bowood Muscat from pot Vines, and Black Hamburgh Grapes, Providence Pine, Bailey's Green-fleshed Melon, Washington Plums, Red Magdalen Peaches, Elruge Nectarines, and Bon Chrétien Pears. Third, Mr. A. Henderson.

With a single fruit of Queen Pine, Mr. J. Hall, of Rotherham, was first, his fruit weighing 7 lbs. 10 ozs. Second, Mr. T. Young, Aberdare, weight of fruit 5 lbs. 6 ozs. Third, Mr. A. Grant, Finchley, weight of fruit 4 lbs. 14 ozs. With a single fruit of any variety but Queen, Mr. T. Page, gardener to Mrs. Leaf, Streatham, was first with a fine Prickly Cayenne; second, Mr. Dwerrihouse, Heckfield Gardens, with Smooth Cayenne; third, Mr. T. Page, also with a Smooth Cayenne.

With boxes or baskets of 12 lbs. of Grapes, Mr. R. Harris, Southgate, and Mr. J. Meredith, Garston, Liverpool, were equal first with Black Hamburgs, very fine, and beautifully coloured. Equal second, Mr. C. F. Harrison, Otlands, and Mr. G. Woolley, Norwood; the first with White Muscats, the other with Canon Hall Muscats. Third, Mr. J. Drummond, Tunbridge Wells, with Black Hamburgs; and an extra prize to Mr. A. Henderson, with Lady Downes' Seedling. With three bunches of Black Grapes, Mr. J. Richards, Tadcaster, was first with Black Hamburgs, large, highly coloured, and covered with bloom; second, Mr. J. Meredith, with the same; third, Mr. J. Drummond, with Mill Hill Hamburg. With three bunches of White Grapes, Mr. Drummond was first with Muscat of Alexandria; second, Mr. J. Wills, Tarporley, with Trebbiano weighing 9½ lbs.; third, Mr. E. Simpson, Wolverhampton, with Muscats. Mr. T. Bailey also received an extra prize for Trebbiano. The first prize for the largest bunch of any kind was awarded to Mr. J. Meredith for a bunch of Trebbiano, weighing 5 lbs.; second, Mr. O. Goldsmith, of Dorking, who had Black Barbarossa, weighing 5 lbs. 14 ozs.; third, Mr. A. Henderson, with Marchioness of Hastings, weighing 4 lbs. 7 ozs.

With a single dish of Peaches, Mr. W. Kaile, gardener to Earl Lovelace, Ripley, Surrey, was first with splendid fruit of Barrington; second, Mr. J. Cross, the Grange, Hants, with fruit of the same kind; and equal second, Mr. T. Dawson, Panshanger, with Violette Hâtive; third, Mr. W. Plester, Elsinham Hall Gardens.

With a dish of Nectarines, Mr. D. Ferguson, Stowe, Bucks, was first with Orange Nectarine; second, Mr. A. Henderson, with Pitmaston Orange; third, Mr. W. Plester, with Hunt's Tawny.

In the Classes for Scarlet and Green-fleshed Melons, something like seventy-nine fruit were staged. As the awards in these Classes were not made till quite late in the day, I was unable to ascertain the sorts that received prizes.

Figs were good, but the sorts were not named, except in one or two instances. Mr. A. Eman, of Epsom, was first; Mr. C. Wyatt, of Epsom, second; and an extra prize to Mr. Turner, of Slough.

With two dishes of Cherries, Mr. T. Bailey, of Shardeloes, was first, having Morello and Bigarreau; second, Mr. T. Dawson, with Morello and Florence; third, Messrs. H. Lane & Son, with the same as Mr. Bailey.

As is usual at this Show Apples and Pears occupied some considerable space of table room. With six dishes of dessert fruit, Mr. J. Pomfret, of Eton College, was first with Wool Pippin, Cox's Pomona, Cox's Orange Pippin, Peach, Ribston Pippin, and Red Astrachan. Second, Dr. Cooper, Slough, with Red Quarrenden, Celine, Ribston Pippin, Blenheim Orange, Cox's Pomona, and Cox's Orange Pippin. Third, Mr. W. Holden, Maidstone. With six dishes of kitchen Apples, Mr. J. Mortimore, of Carshalton, was first, having Springin Codling, Tower of Glammis, Pult's Pudding, Lord Derby, New Hawthornden, and Lord Suffield. Second, Mr. J. Vicary, Southend, with Hawthornden, Five-crowned Pippin, Wellington, Flower of Kent, Emperor Alexander, and Dr. Feathergill. Third, Mr. Lane, St. Mary's, Kent.

With three dishes of Pears, the first prize was awarded to Mr. C. F. Harrison, Weybridge, who had splendid fruit of Bon Chrétien, Marie Louise, and Duchesse d'Angoulême. Second, Mr. P. Nicholl, Hammersmith, with Louise Bonne of Jersey, Marie Louise, and Bon Chrétien. Third, Mr. D. Donald, Leyton, Essex, with Dunmore, Gansel's Bergamot, and Bon Chrétien. Mr. O. Goldsmith, of Dorking, was first with a single dish of Pears, for weight, having monster Uvedale's St. Germain; second, Mr. Dwerrihouse, of Heckfield, with Gros Calabasse; third, Mr. C. Turner, with Uvedale's St. Germain. In the Class for a single

dish for flavour, Mr. Mortimore, of Carshalton, was first; second, Mr. J. Gale, Hammersmith; third, Mr. G. Grover, Hammersmith. Bon Chrétien seemed to be the best in this Class.

With three dishes of Plums, Mr. Thomas Bailey, of Shardeloes, was first with fine fruits of the following:—Sir. C. Napier, Washington, and Prince of Wales. Second, Mr. J. Pomfritt, Eton College, who had Denyers' Victoria, Washington, and Victoria. Third, Mr. R. Webb, of Reading, with Magnum Bonum, Washington, and Goliath.

A few things were shown in the Miscellaneous Classes, among them was a horseshoe Geranium from Messrs. F. & A. Smith, of Dulwich, named Excellent, having fine trusses of large orange scarlet flowers. Some new Cucumbers were also staged, whose appearance was all that could be wished for. They comprised two sorts from Mr. R. Halls, of Colchester, one being Telegraph, a Black-spined fruit; the other Volunteer, a White-spined variety, both about 26 inches in length. From Mr. Aylott, gardener to J. S. Tanqueray, Esq., of Hendon, came fine fruit of a Black-spined kind, named Empress. Mr. Westcott, of Singleton Abbey Gardens, Swansea, had a handsome Black spined-variety unnamed, about 26 inches in length. Some dishes of fruits were also staged; and lastly, there was a collection of fruiting orchard-house trees in pots, from Messrs. H. Lane & Son, Berkhamstead.

Quo.

AWARDS OF THE ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

June 17th, 1863.

ABIES CANADENSIS var. *BREVIFOLIA*.—Messrs. Fisher, Holmes, & Co. [C. and B.].—A North American Conifer of slender pyramidal habit, remarkable for the dumpy, plump-looking, blunt-ended leaves, which clothe its small twiggy branches, and which from their brevity and plumpness give it some peculiarity of aspect. Mr. Murray, however, reports that he does not find in it any distinctive character; "the number of rows of stomata and their disposition is the same; the leaf is a little darker and dumper. I should say it was a variety of canadensis."

ALSOPHILA TENITIS var. *DENTICULATA*.—Messrs. Veitch & Son [S.C.C. and S.B.].—A young vigorous plant of a handsome tree Fern, having large bipinnate fronds, thinnish form but not thick in texture, shining on the surface; the pinnules oblong, acuminate; and the stipes dark-coloured, aculeate at the base.

AMARYLLIS PERFECTA MARGINATA.—Mr. Williams [F.C.C.].—One of the pale red varieties with light edges, but of better form than the varieties of this character generally grown.

ANDROMEDA sp.—Messrs. Veitch & Son [C. and B.].—A showy dwarf evergreen bush, 1½ foot high, clothed with ovate or elliptic-oblong leaves, and in the axils of the uppermost of these several linear spikes of decurved flowers, the corollas of which are pitcher-shaped and pure white. It had been introduced from California.

ATHYRIUM FILIX-FEMINA var. *GLOMERATUM* (Moore).—Messrs. Ivery & Son, Dorking [C. and B.].—A very handsome dwarf tasselled variety of Lady-Fern, obtained as a sport from *corymbiferum*, from which, however, it is wholly dissimilar. It is, in fact, intermediate in character between *multiceps* and *coronatum*, having, like these, the lower part of the frond narrowish, and not greatly developed; the tasselled ends of the pinnæ being also furnished with small, broadish, flat crests, but the apex being developed into a large, ball-like, compactly cristate, spreading head. It is a very desirable new form to be added to the many already known.

BLECHNUM NITIDUM var. *CONTRACTUM*.—Messrs. Veitch & Son [C. and B.].—A Lomaria-like Fern from the Philippine Islands, but, judging from some semi-fertile fronds which it had produced, rather to be identified with the contracted form of *Blechnum nitidum* than with any known Lomaria. It had bold pinnate fronds with crowded, linear-oblong, acuminate pinne, spinosely serrulate at the margin. The fertile fronds are sometimes very much contracted, sometimes only partially so.

BROMELIA SCEPTRUM.—Messrs. Veitch & Son [S.C.C. and S.B.].—A noble-looking plant with the general aspect of a Pine Apple, to which it is closely related. The leaves were long and widely spreading, dark green; the upper ones acquiring a reddish tinge, and the margins armed with strong, distant, spiny teeth. In the centre of the tuft of leaves just lifted out of the heart, was the large closely pyramidal panicle of flowers, the base of which was decorated with rich scarlet bracts or small leaves, the upper bracts amongst the flowers being white. The whole panicle was whitish with a kind of mealiness, and the blossoms were white tipped with purple. It was a regal-looking plant.

CALCEOLARIA BIVOU.—Mr. Watson, St. Albans [S.C.C.].—A shrubby variety, with deep chocolate crimson flowers. It was rewarded for its merit as a bedding variety.

CENTAUREA ARGENTEA.—Mr. Bull, Chelsea [C. and B.].—A perennial, with white cottony leaves. Useful for flower-garden purposes, but of no interest as a flowering plant, in which character it was shown, the flowers being purplish and like those of common Knapweed. The leaves, which were very elegant, were pinnate, with the segments pinnatifid, the segments being numerous and narrow; the whole surface clothed with white cottony hairs.

CYPRIPEDIUM STONEI.—Mr. Williams [F.C.C. and S.K.].—A very beautiful species from Borneo, noticed in Vol. ii., page 689.

DEUTZIA CRENATA FLORE PLENO.—Mr. Standish, Ascot [F.C.C. and S.K.].—A very handsome hardy Japanese shrub introduced by Mr. Fortune. It had opposite, shortly-stalked, ovate-acuminate, finely serrated leaves, and terminal racemes of drooping flowers, which are double white, punctately tinged on the outer surface with deep rose.

FUCHSIA PILLAR OF GOLD.—Messrs. F. & A. Smith, Dulwich [C.].—A variegated and yellow-tinged variety, the golden glow on the foliage giving it rather a striking effect.

HOMOIANTHUS VISCOSUS.—Messrs. Veitch & Son [C. and B.].—A free-blooming hardy perennial from Valdivia. It forms a tuft of oblong-cuneate, sinuately-toothed root-leaves, from amongst which rise numerous flowering-stems $1\frac{1}{2}$ foot high, each bearing about three or four capitules corymbosely arranged, and about as large as those of the Chicory; the florets of a purplish-violet colour, paler towards the centre of the head. It will make a good border flower of the composite class.

LASTREA ERYTHROSORA.—Messrs. Veitch & Son [S.C.C. and S.B.].—A handsome hardy Japanese Fern, with fronds about 3 feet high with dark stipes, bipinnate, of ovate outline, of a bright shining green; the pinnules oblong, falcate, acute, and more or less lobed, but chiefly remarkable for having their under surface decorated with lines of red dots, these dots being, in fact, the indusia overlying the roundish heaps of spore-cases in the form of deep red scales which are very evident in the younger stages of the fructification. It is a charming addition to our hardy Ferns, associating well with *Lastrea opaca*, another fine hardy ever-green species lately introduced from Japan and China.

LYCHNIS SENNO.—Mr. Standish [S.C.C. and S.B.].—A fine hardy herbaceous plant, with erect stems about $2\frac{1}{2}$ feet high; hairy, opposite leaves, which are stained on the under side with chocolate purple, and bear in their upper forks large deep crimson flowers 2 to $2\frac{1}{2}$ inches broad, and having the margin toothed; the calyxes are hairy and purplish. Another form called *striata* was shown with the foregoing. This had the leaves slightly and unequally variegated at the edge, and the flowers rather larger than the other, crimson streaked with white.

MARATTIA (?) COOPERI (Moore).—Messrs. Veitch & Son [F.C.C. and S.K.].—A very beautiful Fern of the marattiaceous group, but, as yet, only doubtfully named, not having borne fructification; it is, however, quite unlike all the species of this group hitherto made known. From the large purplish massive rootstock rise the purple stipites, which, in the moderate-sized plant exhibited on this occasion, divide into about two pairs of branches of oblong outline and bipinnate; the leaflets or pinnules being shortish, oblong-acuminate, doubly incise-serrate on the margin, and of a motley half-variegated green colour. These compound branches being most gracefully spreading and pendent from the nearly upright stipites. It comes from Australasia.

MIMULUS MACULOSUS.—Messrs. E. G. Henderson & Son, St. John's Wood [C.].—A group of varieties of the new hybrid spotted Monkey-flowers, named *Annie*, *Elise*, *Lizzy*, *Rosa*, *Mary*, *Bessie*, was commended in the lump as ornamental novelties too little dissimilar to be otherwise noticed.

OUVIRANDRA BERNIERIANA.—Messrs. Jackson & Son, Kingston [F.C.C. and S.K.].—Of this, which is one of the beautiful Lattice-leaf plants of Madagascar, a fine healthy plant in a large deep glass pan was shown. The leaves, all submerged, were long, narrow, and ribbon-like in form, full of holes between the regular quadrangular system of network, of which they are composed. They are much longer and narrower than in *O. fenestralis*, an admirable sample of which, shown by Mr. Bull, served for comparison.

PANCRATIUM AMBOIENSE.—Messrs. Veitch & Son, Exeter and Chelsea [F.C.C. and S.K.].—This was a fine-looking stove bulb introduced from the Philippine Islands. It had bold, cordate, ribbed leaves; and these, together with its tall scape of pure white flowers, were suggestive of some of the lovely species of *Eucharis*, though sufficiently unlike them on further examination. The scapes were about 2 feet high, and supported an umbel of several erect white flowers, the perianth segments of which were stiff, oblong-elliptic, and the staminal cup very small.

PANSY (Fancy) BOB RIDLEY, HARLEQUIN, DAZZLE.—Mr. Bragg, Slough [C.].

PANSY (Fancy) FALLAS.—E. J. Lowe, Esq., Beeston [C.].—A large, showy, purple and yellow variety, with dark blotch.

PELARGONIUM ACHILLES.—G. W. Hoyle, Esq., Reading [F.C.C.].—A high-coloured sort of good properties; crimson, clouded with maroon, the centre pure white. A very attractive flower.

PELARGONIUM (Zonale) ADONIS.—Mr. Hally, Blackheath [F.C.C.].—A fine horseshoe scarlet, favourably reported on in Vol. iii., page 75, as having been grown at Chiswick. It is a fine bright scarlet of good form, with a white eye.

PELARGONIUM ARISTIDES.—G. W. Hoyle, Esq. [S.C.C.].—A showy variety of the rosy class, having some tolerably good properties.

PELARGONIUM MAID OF HONOUR.—W. Beck, Esq., Isleworth [C.].—One of the pleasing because distinct-looking sorts, with a purplish or lilac tone of colour. This was rewarded chiefly for its colour, which is that of Viola, on which it was considered to be an improvement.

PETUNIA MRS. SHERBROOK.—Mr. Turner, Slough [C.].—A large-flowered magenta-and-white-striped sort, with angular reflexing lobes to the corolla.

PINANGA, SP.—Messrs. Veitch & Son [C. and B.].—A handsome pinnate Palm from the Philippine Islands, with few broad pinnæ incisely toothed at the end, and of a mottled dark green colour.

RHYNCHOSPERMUM JASMINOIDES VARIEGATUM.—Messrs. A. Henderson & Co., Pine Apple Nursery [C. and B.].—A greenhouse evergreen shrub, which promises to assume a very ornamental character. Its leaves are marbled with greyish-green, and freely edged with cream colour, forming a very irregular border, sometimes, indeed, occupying nearly the whole of one side of the leaf. It had been imported from Japan.

SELLIGUEA POTHIFOLIA.—Messrs. Veitch & Son [S.C.C. and S.B.].—A handsome and distinct Fern, introduced from Japan, and found also in India. It had a stoutish creeping rhizome, from which rose up the erect pinnate fronds a couple of feet high, and divided into long linear-lanceolate pinnæ, which were a good deal attenuated at the point, and distinctly decurrent at the base, so as to form a wing to the rachis, whence the plant has sometimes been called *S. decurrens*. The fructification is in naked oblique lines.

TAXUS HIBERNICA var. FASTIGIATA.—Messrs. Fisher, Holmes, & Co., Sheffield [F.C.C. and S.K.].—This was exhibited as a perfectly hardy constant variety, obtained from seed of the Irish Yew. It proved to be a very beautiful shrub, of close fastigiate habit; the young leaves golden with a green rib. This golden tinge was very regularly developed over the several plants sent, and was a strongly-marked feature.

TRICHOMANES CRISPUM var. PILOSUM.—Messrs. Low & Co., Clapton [S.C.C. and S.B.].—A beautiful Film-Fern with long, narrow, pinnate, translucent fronds, clothed with rufous hairs; hence it is sometimes called *Trichomanes rufum*.

VERBENA OTHELLO.—Mr. Wills [C.].—A close-habited, dark, claret-coloured sort, considered to be an acquisition as a bedding variety. It was stated to be a seedling from Robert Burns.

WOODWARDIA JAPONICA.—Messrs. Veitch & Son [S.C.C. and S.B.].—A fine Japanese Fern of the bold-habited class, quite dissimilar from *W. orientalis* recently introduced from the same country. The fronds are ovate-pinnate, a couple of feet high; the pinnæ broadish, notched with good-sized, shallow, roundish lobes.

(To be continued.)

REVIEW.

The Rose Amateurs' Guide, containing Ample Descriptions of all the Fine Leading Roses, Regularly Classed in their Respective Families, their History and Mode of Culture. By THOMAS RIVERS. Eighth Edition. London: Longmans.

THIS is the eighth edition of a work which has now been for many years before the public, and which we believe was among the first to disseminate instruction on the subject of Rose-cultivation in this country. We remember the early editions, thin and lanky as they were, and we sometimes stumble over one now; but what a contrast do they present to the portable and substantial volume now before us, "enlarged, corrected, and improved," as it is with much new and practical matter!

Among the new matter we have a note on the old Double Apple-bearing Rose:—

"The true tree Rose is the old variety called the Double Apple-bearing Rose, the '*Rosa sylvestris pomifera major*' of Miller's '*Gardeners' Dictionary*.' At the commencement of the present century this kind was the only tree Rose of our gardens, with the exception of the double Sweet Briar, which in strong soils often formed itself into a fine standard tree.

In the 'front court' of my father's garden, I remember two fine tree Roses, one the double Apple-bearing; the other the Double Sweet Briar; they had large heads many feet through, and stems gnarled and knotted, measuring 2 feet in circumference: their beauty, when their large heads were covered with flowers, was most striking, and the polite stage-coachmen of those days used to pull up to allow their passengers to have a good look at those glorious trees—one almost regrets that such pleasant times are gone for ever. The trees were destroyed by a heavy fall of snow in the autumn before they had shed their

leaves, which, lodging on the branches, crushed them to the ground, so that they never recovered. Some old specimens of the Double Apple-bearing Rose still exist here: one has a stem nearly 18 inches in circumference."

One of the new features in gardening that is now coming into vogue and which bids fair to become an object of attraction, is the Tea-scented Rose-house. We saw one some time ago at Mr. William Paul's, of Waltham Cross, and we cannot imagine anything more delightful than such a structure. The naturally delicate and tender constitution of the Tea Rose unfits it as a permanent out-door inhabitant in our English climate, and the protection that a house affords is therefore beneficial to it; but apart from this consideration, the extreme beauty and delicacy of the colours and forms of the flowers are so enhanced and preserved, that the additional charms they convey are ample compensation for the extra care bestowed on their cultivation. Mr. Rivers says—

"A house for those beautiful Roses, to be enjoyable, should be span-roofed—glazed with large squares of glass, the rafters light, and the roof fixed. Its dimensions should be as follows—width, 14 feet; height of sides, from 5 to 6 feet; height to ridge, from 9 to 10 feet; it should be ventilated at each side by shutters on hinges; or sashes 18 inches wide; no roof-ventilation is necessary. A nicely gravelled path, 4 feet wide, should occupy the centre, and a border made on each side 5 feet wide. Each border will hold three rows of Rose trees, which should be planted so as to form two banks of Roses in this manner: the back row should be of low standards, 3 feet in height; the middle row, standards 2 feet 6 inches high; and the row next the path, dwarf standards 2 feet high. When the trees are in full foliage and flower, a perfect bank of beauty is formed; for, owing to the favourable climate, the trees grow with a vigour hardly conceivable. Previous to planting, the borders should have a dressing of manure 6 inches thick, which should be well mixed with the soil to a depth of 2 feet. I have been induced to suggest this mode of culture for Tea-scented Roses, owing to my having planted, in December, 1862, a border in one of my span-roofed orchard-houses with low standards of the most choice varieties of this beautiful group. I have never, in the whole course of my experience, seen anything in Rose-culture so beautiful and so gratifying: for during the whole of this month (May, 1863), not only their flowers but their large beautiful leaves, unscathed by frost, wind, or rain, have been a source of untiring gratification. No artificial heat is employed, so that the air is always pure and most agreeable. In a house of this description, Tea-scented Roses will bloom beautifully from May till November; but in spring and autumn—say in May and part of June, and again in September and October—they will be in the greatest perfection. In June, July, and August, the ventilators should be open night and day in calm weather, and closed only to exclude violent wind."

The extent to which Roses are now grown in pots has called forth new modes of culture, and there is no more agreeable and beautiful form in which to bloom those favourite flowers, than in the close compact little bush such as we see now so extensively exhibited at the metropolitan flower shows. On this subject Mr. Rivers has the following very useful observations:—

"A very simple and efficient method of gaining two years' growth in one has been practised here for many years, and imitated by numerous Rose-growers.

"About the 1st of May a hotbed should be made, 5 feet wide and 3 feet in height—if of leaves and manure equal parts, all the better, its heat will last longer. On this bed some light mould should be placed, about 6 inches thick, supported by boards. Roses intended for rapid growth should be taken from their small pots, their balls of earth loosened, and potted into 24-sized or eight-inch pots, with the usual compost; these should be plunged up to their rims in the bed, and the surface of each pot covered with rotten manure, about an inch thick. They may remain thus plunged for six or seven weeks, at the end of which time the heat of the bed will have declined; the pots should then be removed, and the soil they are plunged in; the bed should then be remade with about half its bulk of fresh manure mixed with it, the pots re-plunged, and the plants suffered to grow till autumn, when they should be removed to pits or houses appropriated to their culture."

CALENDAR OF OPERATIONS.

CONSERVATORY.

A good stock of Tulips, Hyacinths, and other Dutch bulbs should at once be potted for winter and spring-flowering, if not already done. Attend to *Salvias*, *Chrysanthemums*, and other plants for autumn decoration. Keep them neatly tied and well watered. No time should now be lost in housing the plants; but,

before doing so, the summer-flowering climbers and others should be cut freely back, and the permanent plants should all be gone over, and cleaned and tied-in if they require it. The house should also be thoroughly cleaned before the plants are brought in. Have all the pots well washed, and the plants cleaned and neatly tied before they are housed. Avoid crowd-

ing, and arrange the flowering plants with taste over the house. Attend carefully to the watering of all plants. Camellias that are swelling their buds will require liberal supplies. Give all the air possible in mild weather, but guard against cold winds. Unless in case of frost or to dry up the damp, fire heat will not yet be necessary.

GREENHOUSES.

HARDWOODED PLANTS.—No time should now be lost in housing any plants that are still out of doors. In arranging the plants the more tender kinds should be placed at the best and warmest part of the house, and the more hardy ones at the coolest part. All plants set with bloom should have the most lightsome places; the others may stand in the more shaded parts of the house. Perfect cleanliness, abundance of air and water when necessary, are the principal matters at present that demand attention. **SOFT-WOODED PLANTS.**—*Pelargoniums*.—Those now flowering in May should now be finally shifted. Tie-out the young shoots as they advance in growth. Pick off all decayed leaves, also the small ones in the centre of the plants. They will not require much water until they begin to fill their pots with fresh roots. They should then have plenty when they require it. Pot-off cuttings, and shift those previously potted-off. Give plenty of air in fine weather. Maintain a night temperature of from 50° to 55° according to the state of the weather. Fumigate occasionally to keep the plants clear of green fly. *Cinerarias*.—Many of the strongest seedlings will now be throwing up their flower-stems. These, if put into a little heat, will soon be in flower, and will be very useful during the autumn. Specimen plants for spring-flowering must be carefully attended to. Shift any that may require it, and tie-out the leaves to allow the air to circulate freely through the centre of the plants. Water when necessary. Shift all young plants that require it. Ventilate freely, and guard against frost and damp. Fumigate for green fly. *Calceolarias*.—Repot in a rich, light, sandy compost. Water carefully, as they are very liable to damp-off. Put in cuttings—they root freely at this season. *Fuchsias*.—Prune back all done flowering. Water well any still in flower. Pot-off cuttings.

STOVE.

Climbers that lose the leaves should be cleaned and pruned back, to give light to the plants underneath. Pay great attention to Begonias, Juscias, Euphorbias, and other winter-flowering plants. See that all plants are clear of insects. Maintain a temperature of from 65° to 70° at night, and 75° to 80° during the day. Water according to the individual state of each plant, and give air freely at all opportunities.

FLOWER GARDEN.

Until a night's frost makes all desolate, spare no pains to keep everything in the best possible condition. Look carefully over the stock of cuttings to see that nothing has been omitted. Lose no time in getting in cuttings of *Calceolarias* root with great certainty in a cold frame at this season. The choicer kinds of bedding *Geraniums*, the stock of which may be short, should be lifted and potted before they are injured by the frost. Choice sorts of *Hollyhocks* take up, pot, and winter in a cool house or pit. *Dahlias* lift dry and store away. *Chrysanthemums* make a grand display when they are protected from the weather. Plant all kinds of hardy bulbs for early flowering in spring, as *Crocus*, *Snowdrop*, *Tulips*, *Aconites*, *Dogstooth Violets*, *Hyacinths*, *Fritillarias*, *Crown Imperials*, &c. Plant-out *Pinks*, *Pansies*, *Alysums*, &c. *Pleasure Grounds*.—As the leaves from the trees will now be troublesome, have the walks and lawn swept frequently. The planting of cypergreens and deciduous trees should now be proceeded with in good earnest. All large trees should be removed with great care, and be well secured against the strong winds. When properly transplanted, there is little danger of their succeeding well at this season. When put off till spring there is then great risk.

FORCING.

FRUIT.—*Pine Apples*.—For fruiting plants see

directions last month, which will apply to this. The plants for starting in January ought now to have completed their growth. They will require a drier atmosphere now and more air when the weather permits, with a night temperature of from 60° to 65°, according to the weather. Succession plants should have plenty of air on fine days. They should only be watered when absolutely necessary, as it is not advisable to stimulate the plants into free growth at this season. They must have a steady bottom heat of from 80° to 85°, and a night temperature of about 65° will be sufficient at present. *Vines*.—The early house should now be started. Give the borders a good soaking of water. Syringe the Vines two or three times daily. Give air in the early part of the day when fine. Keep a dry atmosphere in the late houses by making fires during the day, and giving air at the same time if the weather permits. *Peaches and Nectarines*.—Prune the trees in the early house and then put on the sashes, but give plenty of air both by night and day. In wet weather remove all the old ligatures, and clean the trees of everything likely to harbour the eggs or larvæ of insects, then give them a dressing of the following mixture:—Soft soap, sulphur, clay, and tobacco water, all reduced to the consistency of paint, with warm water. When this is dry on the trees they should then be neatly tied down to the trellis. Towards the end of the month, when the leaves are all off the trees in the late house, any pruning required should be done and the sashes put on before bad weather sets in. *Figs*.—Maintain a temperature of about 60°, to ripen off the late crop of fruit. Water at root only, and that very sparingly. Keep the atmosphere of the house dry, and give air when the weather is mild. *Strawberries*.—Pinch off all runners as they appear. Very little or no water will now be required, as the forming and perfecting of the crowns is now the principal point, for which dryness is most essential. *Melons*.—Whilst the fruit is swelling endeavour to keep the foliage healthy, and maintain a steady bottom heat. Water at the roots only when necessary. *Cucumbers*.—Maintain a moist growing atmosphere, and a temperature of 70° at night and 80° by day. Water well when necessary, and give air freely at all favourable opportunities.

HARDY FRUIT.

Most kinds of Apples and Pears may be gathered this month. Late Pears should be left on the trees whilst the weather continues favourable. As a general rule they should be taken when the fruit parts freely from the spur on being lifted upwards. Great care should be taken in gathering fruit not to rub the bloom off or to bruise them. Much fine fruit is often-times spoiled by careless gathering. Lay them carefully on the shelves in the fruit-room. Gather *Filberts*, *Quinces*, *Walnuts*, and *Medlars*. Late *Peaches* and *Plums* protect on walls. Plant fruit trees of all kinds as soon as the leaves begin falling. On strong soils it is advisable to plant on hillocks raised a little above the surrounding surface. On thin light soils they should be planted on a level with the surface. Make fresh plantations of *Raspberries* and *Strawberries*.

KITCHEN GARDEN.

One of the principal matters requiring attention this month is the lifting and proper storing of the root crops. No opportunity should now be lost to get the Potatoes out of the ground and stored away in proper condition. Take advantage of dry weather towards the end of month to get up and store away. *Beet*, *Salsify*, *Scorzonera*, *Carrots*, *Parsnips*, &c.—Continue to stir and hoe the ground between the crops in dry weather. Continue to earth-up Celery when dry. The Cauliflowers sown in August should now be picked out into frames or under hand-glasses. *Endive*.—Continue to blanch as required. Spinach should be well thinned out, weeded, and the surface of the ground stirred. *Cabbages*.—Plant out as good breadths also a few Red Dutch for Pickling. *Lettuce*.—Plant on warm sheltered borders. Remove the leaves off of Rhubarb and Sea-kale intended for forcing. Clear off all decayed leaves and dress borders. As ground becomes vacant, manure, trench, and throw it up into steep ridges.—M. S.



Deutzia crenata flore-pleno.

DEUTZIA CRENATA FLORE PLENO.

WITH AN ILLUSTRATION.

SOME thirty years ago our gardens were enriched by the introduction of a dwarf Japanese shrub, which in spring time, when laden with its cymose panicles of starry snow-white blossoms, was found to be one of the prettiest of our shrubby ornaments. This was the *Deutzia scabra* of botanists—a plant which, besides the interest it afforded in the garden, also furnished occupation of a highly pleasing character in the study, the stellate silicious hairs with which its surface was covered being found to form one of the most beautiful of microscopic objects when seen through the medium of polarised light.

Since then our gardens have been enriched by other species now familiar amongst us, of which the more important are *D. corymbosa* and *D. staminea*, both ornamental as out-door shrubs, and *D. gracilis*, a charming object as an in-door forcing plant; the latter, which does not generally perfect its flowers in the open air, is indeed one of the most beautiful of all dwarf shrubs for early forcing. The stellate hairs of *D. staminea* too, as we can testify from our own experience, are very much superior to those of the original *D. scabra* as microscopic objects.

With such antecedents as these it was not surprising when it became known that Mr. Fortune had introduced from Japan an ornamental *Deutzia* with double flowers, that expectation should have been strained to its highest pitch. And when in the course of the past summer Mr. Standish succeeded in presenting the new introduction in flower at the metropolitan fetes, it was seen at once that expectation was not in this instance doomed to disappointment, but that a sterling addition to our dwarf hardy shrubs had been secured.

It is this plant, thus ushered into notice, *DEUTZIA CRENATA FLORE PLENO*, which we have now the pleasure of figuring; and of which our figure by Fitch will, we trust, convey a fair idea, notwithstanding that the beauty of a plant with pale-coloured blossoms, and whose effect depends in some measure upon the presence of an example of at least moderate size, and well furnished with flowers, is very inadequately realised by the representation of a small sprig upon white paper. We can at least assure those of our readers who have not seen the plant, that it is fully equal in beauty to any of its congeners, and quite distinct from them all. It forms a dwarf shrub, with opposite, shortly stalked, ovate, acute, finely crenulated leaves, and racemes of drooping flowers, which are white punctately tinged on the outer surface with deep rose; they are furnished with several petals instead of the normal number—five, and hence form what are called double blossoms.

Deutzia is nearly related botanically to *Philadelphus*, being distinguished chiefly by its definite stamens, its tricuspidate filaments, and its free styles. Concerning the species Dr. Siebold observes that some succeed only on plains but little elevated above the sea level—*e. g.*, *D. scabra* and *crenata*, while others prefer the deep humid valleys of lofty mountains—*e. g.*, *D. gracilis*, *Brunoniana*, *corymbosa*, and *staminea*. The most common species in Japan is, according to the same authority, *D. scabra*, which grows along hedges, on gentle slopes, and on rocks; seldom at a greater height above the sea than 1200 feet, where it is associated with *Euonymus*, *Viburnum*, *Eurya*, *Ligustrum*, *Vitis*, *Cissus*, &c. Towards the end of the year the leaves of this species are collected for the use of cabinet-makers, who employ it as a polishing material in place of the Dutch Rushes of Europe. Hedges are also formed of this shrub, and it is cultivated in gardens, especially a variety with double flowers, which is agreeably intermingled with the different species of *Hydrangea*, *Aralia*

pentaphylla, &c. *D. crenata* is more rare, and succeeds best in the valleys of little elevation and damp. It is also found in hedges intermixed with *D. scabra*. *D. gracilis* occurs only on the high mounts of the south of Japan.

All the species may be recommended as useful plants for spring forcing; and our present subject especially so, from the contrast between its rosy-tinged blossoms and the pure white ones of those of other species. M.

HINTS ON THE CULTIVATION OF THE GRAPE VINE.

I MUST confess my hints on the cultivation of this favourite fruit ought long ago to have been completed; but owing to so much having been written at the time about the Vine, I thought that my scribble might be deferred.

Those who are anxious to have Grapes all the year round without wearing out too soon the early and permanent vinery, I recommend them to adopt the following plan:—Erect a span-roofed forcing-pit for Vines in pots, from which the first crop of Grapes may be had; also four vineries in addition to this, the sizes of the different houses to be made according to the quantity of Grapes required for the family. Say the span forcing-pit to be 50 feet by 16; the early and permanent vinery may be, if a lean-to, 60 to 70 feet long; if a span-roofed vinery, 35 to 40 feet long by 26 feet wide. The latter shape I prefer to all others. My own early vinery is 65 feet by 23 wide, the ends of which are nearly east and west, and we have cut first-prize Grapes from the north side of the house three years successively; and upon the whole the north side has been quite equal so far to the south side. The size given for the first house will do for the second, and the same dimensions will do for the third and fourth vinery.

Assuming there are these many houses, and one forcing-pit, the dimensions of which may be regulated according to the demand to be made upon the gardener. There are many places in which are to be found six or eight vineries, and a quantity of forcing-pits besides, all of which are necessary according to the demand, and many of course who have not the quantity absolutely necessary for the supply of their family.

I particularly at this point press upon all gardeners who have not got the necessary convenience for giving a succession of Grapes all the year round, to urge their employers to supply the proper structures for that purpose. There are very few families who would not like such a luxury.

The forcing-pit should be heated with eight rows of four-inch pipes, four rows for top and bottom heat, and arranged so that either may be worked at pleasure: this will enable the gardener to keep the roots a little in advance of the top.

The early vinery may be either a lean-to or span-roofed. I advise that the rafters be fixed 4 feet 6 inches from centre to centre of rafter: this will enable the gardener to plant the Vines every 2 feet 6 inches. I think it much better to take 30 lbs. weight of fruit from two Vines than from one occupying two rafters. The varieties for the early house should be principally Black Hamburgs, and five or six varieties of White kinds may be introduced, such as Buckland Sweetwater, White Frontignan, Chaptal, and a Muscat or two may be planted at the warmest end of the house. A span-roofed vinery (early), should have ten rows of four-inch pipes in it, and at least half of these pipes should have the broad evaporating-troughs cast upon them, as sustaining moisture whilst the fruit is swelling is a very important matter.

The second vinery I would transplant principally with the best varieties of

Black Hamburgs, and a few other kinds for the sake of having a variety, such as Black Prince, Trentham Black, Buckland Sweetwater, Chaptal, White Frontignan, and one or two Muscats of Alexandria at the hottest end of the house. This house should have eight rows of four-inch pipes in it, taking care to have half with troughs as recommended above.

The third vinery I would transplant with the different sorts of Muscats, such as Charlesworth Tokay, Bowood Muscat, Barnes' Muscat, and Muscat of Alexandria; and although there is no apparent difference in the appearance of the fruit, my opinion is, there is a difference in the constitution of the plants. I would also advise that one or two Canon Hall Muscats should be planted. This house should have the same quantity of pipes and troughs in it as recommended for the early vinery.

The fourth vinery to have eight rows of four-inch pipes, and trough-pipes as recommended above, and to be planted with the true variety of Black Alicante (see the report in the *Gardeners' Chronicle* and *Journal of Horticulture* of the Fruit Committee of Oct. 4th), Lady Downes', West's St. Peter's, Barbarossa, Old White Tokay, and Trebbiano.

The Vineyard, Garston, near Liverpool.

J. MEREDITH.

(*To be continued.*)

A FEW THINGS RELATING TO ROSES.

[AFTER we received the following communication from our esteemed correspondent, he informed us that he had also sent it to one of our contemporaries. This, then, will account for it appearing simultaneously in two periodicals.]

1. *Moss*.—On full consideration I think that showing Roses on moss is the best way. It is difficult in this life to make things quite equal. Those who can get tree moss have a great advantage over those who can only get ground moss. The quality of this differs according to the richness or poorness of the ground. Here the soil is mainly poor, and I, for one, can only procure something that bears the name of moss, of a yellowish-green colour. Sometimes it is as brown as a door-mat.

2. *The Show Box*.—This should be 6 inches high at the back, and 4 inches in front. The width should be 18 inches including the wood. The proper length is 3 feet; but if notice is given of the length of the box, the length is not material. The stems of the cups need be only 4 inches. To meet the upraised tendency of the back and centre, strips of wood should be nailed or screwed to the bottom of the box; this will make the cups level. Supposing the box to be for twenty-four Roses in three lines of eight Roses, the base of the cups may be fixed with tin tacks in their places. Being fixed, haybands or chips will suffice to stuff up the box; and then the surface may be covered with moss. Where moss, as here, is scarce, this will be found economical. The cover of the show box should not be painted, as paint draws the heat. A wet cloth in very hot weather should be over the box. The heat and shaking of a train do great mischief.

3. *The Bud Rule*.—Much diversity of opinion on this subject prevails, even among those perfectly able to give an opinion. Those who have large stocks of Roses and good land are generally for enforcing the bud rule, a rule which is *never enforced*, and, therefore, a very unwise rule. Were the rule enforced there would scarcely be a box without the word "disqualification!" The Judges at the National have no time to examine bud-removals; they have barely time to count the good Roses. The bud rule is rather hard upon those who have small stocks of Roses and inferior ground. Were they allowed to

disbud, they might get a bloom larger and forward enough for the show day, which else will be left behind, and an inferior one will be taken in its place. The difficulties of getting good blooms, and conveying them in condition long distances, are sufficient already. None but those who exhibit know what a toil it is. The best way is to have no rule at all. Those who have a good Rose with clean buds will be sure to take it. A good Rose with bad buds is spoiled. The best twenty-four Roses that I ever saw in my life, and by far the finest, were exhibited by Mr. J. Keynes at the Floral Hall, Covent Garden, some years back. Such of them as were not natively single had all been disbudded. I give him credit for his good sense: he won the first prize rightly. Mr. Cranston's were second; they had their buds, and were, though not quite the size, very fine Roses. They were the best twenty-four that I ever saw with their buds on. What we want at exhibitions is good specimens. I can assure your readers that, having acted twice as censor at the National Rose Show with Mr. Wood, a fair and most painstaking censor, together with others not less so, the proportion of bad, indifferent, and out-of-condition Roses, even in winning-boxes, quite astonished me. In the year 1862 this was especially the case. In that year the Roses from Reed Hall were as good as if they had been turned in a lathe: moreover, their condition was good. Mr. Hedge must be crowned king.

As regards trebles, I agree with Mr. W. Paul, that they afford an opportunity of seeing a Rose in different stages of development; but if they are not all three good and in good condition, the bad one and the indifferent one make my eyes ache so, that I cannot enjoy the good one. I, for one, do not care for *effective* boxes or *effective* bushes. I look for good specimens in both cases.

I was in a neighbouring county at a Rose Show some years back, where *effectiveness* was the order of the day. The boxes were with one exception, besides my own, all more or less dressed with leaves. I observed to a gardener whose box was a "wiggery of false hair," "I do not like your system of dressing-up." He looked at me seriously and full in the face, and said, "Why, Mr. Radclyffe, I am 'stonish'd' at you—a gentleman as knows a Rose so well as you! Why you would entirely 'disappoint' the public and 'spile' the Show outright!" I laughed heartily, won during the year three second prizes and an extra prize for collection of 106 Roses in September, paid my subscription for another year *like a man*, and withdrew from further "effectiveness."

Nothing should be added to the truss, but I would permit disbudding. Some Roses, such as Duchesse d'Orléans and Sœur des Anges often cast five buds of the same size and age, four of which should be removed, or they will spoil each other. In some cases the buds are so close to the centre one that it would not expand without the removal of the surrounding ones.

4. *Rose Judges*.—It is not every judge of florists' flowers that is fit for a Rose judge. None but extensive growers are really fit for it; and for this reason—Roses alter so much on travel that three Roses, usually quite distinct, may look like each other. I have seen Auguste Mié, Duchesse d'Orléans, and the H.P. Queen of Denmark look so like each other that a non-rosarian would have disqualified the box. On one occasion I saved a gentleman from this disgrace, and he got a prize—I think a fourth prize. The Roses were rightly tallied.

5. *Pot-plants—Novelties*.—These generally arrive tied to a Currant twig, which roots faster than the stock. The ties should be cut with a pair of scissors, and the twig should be removed and replaced with dead wood. Scissors are better than a knife to cut the ties, as you are less likely to bruise the unhardened wood, which looks like a seedling Asparagus three weeks old. If the novelty arrives in the autumn, take it out of the pot and plant it in the

Cucumber-frame. Do not water it, but put dry leaves over the surface. Put the lights on only at night, or in bad day weather. I lost last winter none so treated. If a pot-plant arrives in summer in clayey mould, baked as hard as a brick in the pot, before you plant it out, soak it in a bucket of water till the ball is wet through, or you will never wet it; white fungus will then ensue, and the plant will make no growth. A twelve-hours rain alone will wet this hard ball. After you have wintered your novelties in the frame, in May plant them in two rows with their balls on raised banks, such as thorn hedges are planted on. I planted out this spring sixty-six frame-wintered pot plants, and forty Roses. Even established Roses have grown and bloomed better. The banks are about 3 feet wide, with ditches between them; the banks run north and south, so that the rising sun heated one side, and the setting sun heated the other. The top is heated by the sun in the ascendant. After planting I put on a heavy mulching of black dung battened down, and covered the manure with 2 inches of burnt field ashes to protect the mulching—these were also battened down. Water during the torrid weather was poured on the centre copiously. Thirty-three in equal shares of eleven, were Prince Camille de Rohan, Duc de Cazes, Princesse Mathilde, and one Vulcain—all dark Roses. I saw, on one occasion, besides continuity of blooming, eighty good blooms at one time—a very fine sight. Many of these plants are now from 4 feet high, and strong.

I am induced to send this article from the great number of too flattering encouragements which I have received from all grades in society, and from all parts of the kingdom.

Rushlon.

W. F. RADCLYFFE.

CONCERNING NEW HYACINTHS.

IN reply to your correspondent "Quo," What constitutes a new Hyacinth? &c., allow me first to say that the six new varieties shown by us on the 18th of March last had never been exhibited in London before, and, I believe, in no place in the United Kingdom. The sorts were Feruk Khan, Fair Maid of Denmark, San Francisco, Prince of Orange, Estella, and Rouge Eclatante; this last I was aware was not *absolutely new*, although very scarce; but from my notes I could not find that it had ever appeared at a public show. Maria Theresa, which "Quo" says was one of the six, was merely placed by the side of the above; and I understand from my foreman it was marked off by him before the Judges saw them. At any rate I never intended it as a new one, having many years ago exhibited it as such; and my standing rule has been every season to stage none in this class that have ever been seen before; and I hope it will not be considered out of place for me to take little credit to myself in stating, that nearly every first-class Hyacinth that now occupies anything like a position has been introduced into England by ourselves. Take as example Robert Steiger, Grand Lilas, Florence Nightingale (Fabiola), Madame Van der Hoop, General Havelock, Mont Blanc, &c.

I do not consider that the Dutch information as to dates can in any way determine what constitutes a new Hyacinth. Your quotation from the third Dutch correspondent especially leads me to this conclusion, in which he says Duc de Malakoff was *raised* in 1857, and *sold for exportation* in 1858, it being a well-known fact that after such a sort is selected from the seedlings as would be likely to be worth cultivation, it takes from five to seven years to get bulbs sufficient for this purpose; and then it is probable they would retain them for a year or two longer to test their quality. I always consider a new Hyacinth

to be known to the raiser at *least ten* years before I receive it here, and then I grow them privately for one or two seasons before they are publicly exhibited. As a proof of this I may state, that when I visited Haarlem in 1862, I selected amongst the seedlings many that I thought would be grand additions. I asked the question, "When may I expect to have some of these?" To which my friend naïvely replied, "Possibly in ten years, but more certain in twenty," so that the only hope I can ever have in these seedlings is that my children will have the pleasure of enjoying them.

I consider his question, What constitutes a new Hyacinth? might be easily and satisfactorily settled by adopting the well-known rule regarding other new plants. Take the Royal Horticultural Society for instance, which says, "Any plant that has been exhibited before this Society at a previous Meeting cannot be considered new." Would this rule not equally apply to the Hyacinth as to that beautiful new Japanese Lily, or a Continental Azalea? One surely would not write to a Japanese to inquire how long he had known the Lily, or to the Belgian raiser of the Azalea; neither would it, I think, be necessary to inquire of a New Zealander the age of a tree Fern: therefore, what holds good in one case should in the other; for when once a plant has been introduced, even if not distributed, it can be no longer new if *once* exhibited.

I quite agree with "Quo" that Hyacinths are little known; and I am quite confident, although with due respect to their abilities in other matters, that the Judges appointed on the 18th of March were very little acquainted with them. If they had been, they must have known that the collection to which they awarded the first prize contained many sorts that had appeared several seasons before. The sorts that received the award were, I believe, 1, Florence Nightingale (Fabiola), exhibited by ourselves as long ago, and every season since, 1857; 2, Snowball, in 1860; 3, Koh-i-noor, in 1860; 4, Duc de Malakoff, in 1862; 5, Macaulay, in 1862; and 6, Haydn, by Mr. Turner, in 1860. I have given the dates when they were exhibited; and the Judges, if they profess to be competent, ought to have seen them in the years I quote, although I am now quite convinced they took no particular notice of the subject, or they would not knowingly have committed such a blunder.

My own experience teaches me that it takes many years to get well up in these matters; and to understand them thoroughly they must be *grown*. Neither can I believe any one, however intelligent he may be, is possibly able to obtain a conscientious knowledge of their qualities by means of the much-damaged cut blooms sent over from Holland every year. I say "much damaged" advisedly, for such they really are. New varieties are sometimes sent, but they differ so essentially from those grown in England, that it is all but impossible to distinguish them afterwards. I hope my friend "Quo" will not consider that I utterly condemn the good people of Holland in sending us their examples of cut blooms, as I only wish to imply that a man cannot make himself thoroughly conversant with them in this annual examination.

There are some few first-class judges of these "lovely harbingers of sunny times," in whose hands I should be pleased to place my reputation, but it ought not to be to those who, although excellent judges of Dahlias, Pelargoniums, Roses, and other popular flowers, really know nothing about the Hyacinth.

Allow me, Mr. Editor, now I have pen in hand, to reply to a correspondent in one of your contemporaries, who writes that he found the ground of Holland very hot to his feet. Though I certainly did not carry a thermometer with me when I went there, and neither did I feel the heat through the soles of my boots, yet from my observation of the character of the whole country, I am quite satisfied that there is more water than caloric in the soil.

Highgate Nurseries.

JAMES CUTBUSH.

THE PREPARATION OF HOME-GROWN TOBACCO.

A CORRESPONDENT having inquired how to prepare home-grown Tobacco for horticultural purposes, we are favoured with the following valuable communication on the subject by Mr. Barnes, of Bicton :—

We sow the seed of the true Virginian Tobacco on a gentle heat in the first week in May, and prick off the young plants into pans, boxes, or pots, as soon as they can be handled, an inch apart, placing them again in a little heat in frames or shelves in some of the houses, making use of light, rich, open soil. By the time the flower-garden plants are turned out, plenty of small 60-pots are at liberty to pot-off singly the required batch of plants, which are again placed thick together in a little warmth for a few days; then placed to harden-off in some of the temporary structures where the flower-garden plants had previously been. Hardened-off by the middle of June they will become strong plants, and fit to plant out of doors on any well-trenched well-prepared ground. By August the plants will be from 4 to 5 feet high, the bottom tier of leaves large, and the first three or four tiers in good order to gather. They should be tied up in bunches of eight or ten, and hung up to dry gradually in the tool-house, where a gentle smouldering fire is kept, by using any kind of slow-burning refuse. The door and window being kept shut, in about eight or ten days the sap is found to be enough evaporated to store the bunches of leaves, tightly pressed, into boxes or old hampers. They should be very firmly packed by pressing or treading, and placed away in a dry shed or loft till wanted for use; and if put away in good condition, it will be found on being taken out for use very sweet, oily, and perfect for cutting up, either by a chaffcutter, billhook, or knife, according to quantity required for use. We continue collecting a batch of leaves in succession of about a week or ten days till the middle of October, when the plants have arrived to 7 or 8 feet high, when we make a general clearance of all the leaves, side-shoots, and 3 or 4 feet of the summit of the stems, blossoms, seed, and all. They are tied up, bunched, dried, and packed away when dry. Three or four feet of the large bare part of the stems and roots are then pulled up and dried in open lofts or sheds, bundled or faggotted up and stored in a dry loft to smoke the Apple orchards, with other rubbish, in the month of April and May, which adds wonderfully to the success of a general crop of Apples. The ashes are stored while dry in old casks, boxes, or dry sheds, to dredge fruit trees of any kind subject to moss or lichen, which it very soon exterminates when applied as we do in damp, rainy, or foggy weather, or early morning with heavy dew. We always give the Gooseberry and Currant bushes a couple of good dredgings first as soon as the buds begin to expand; then again as soon as the Gooseberries are set, or as large as small Peas. If we do not catch a dew, fog, or rain, at the right time, we take an engine and damp the bushes. The dredging is soon done. Neither aphids nor caterpillars ever trouble us; if they do attempt, we give them notice to quit by another and prompt dredging. It also agrees wonderfully with the health and vigour of the trees.

Bicton Gardens.

JAMES BARNES.

MUSCAT HAMBURGH GRAPES.—When in Scotland the early part of October, I looked in at Dalkeith to see Mr. Thomson; and in a house of late Grapes just ripening, in which are some remarkably fine examples of Lady Downes' Seedling, I noticed several unusually large bunches of Muscat Hamburgh just colouring; and as they are very much larger bunches than I have met with before, I trouble you with a notice of them. They are from *grafted* plants, and

the bunches averaged from 4 to 5 lbs. each. In fact, they looked much more like Barbarossa bunches than Muscat Hamburgs, but were unquestionably the last-named kind. Mr. Thomson stated that he had grafted this kind on the Black Hamburg; and if these large bunches be the result of grafting, as it appears to be, it will induce me to adopt and recommend the plan to all my friends.

W. D.

THE VICTORIA NECTARINE.

WITH AN ILLUSTRATION.

THE origin of this distinct and fine variety is as follows:—In 1857, Mr. Rivers, of Sawbridgeworth, observing that several varieties raised from the Stanwick Nectarine deviated but slightly from the parent sort, adhering to it with singular tenacity in their habits, and above all not ripening to any extent earlier, determined when the blossoming time again came round to try cross-breeding. Accordingly, in the spring of 1858, he fertilised some flowers of the *Violette Hâtive* Nectarine with the pollen of the Stanwick. The fruit which these fertilised flowers gave were carefully selected, and their stones, six in number, sown. In 1859 the young trees made their appearance, were potted and carefully cultivated. In 1860 two or three of them developed to a certain extent the character of the Stanwick in their sickle-shaped leaves. Unfortunately, from the pots standing in an orchard-house not being properly protected, four of the young trees had their roots killed by the frost of that severe winter.

Of the two left, one in its leaves had the Stanwick character; the other did not differ in that respect from its female parent, the *Violette Hâtive*, which it still retains, and it has borne fruit exactly like it. In 1861 the former bore its first crop of fruit, three of which were submitted to the Fruit Committee at their meeting, September 10th, of that year. From the report of that Meeting, as given in the *Journal of Horticulture* of September 17th, we now quote an extract:—"Mr. Rivers' greatest triumph is the production of a seedling Nectarine which has all the merits of the Stanwick, and none of its defects. It was raised from the *Violette Hâtive* impregnated by the Stanwick. The fruit has all the appearance and richness of flavour of its male parent, but with the deep strain of red in the flesh where it surrounds the stone, like the female. It is a month earlier than the Stanwick, and a fortnight later than the *Violette Hâtive*. Perhaps the most remarkable feature in the whole is, that the fruit being altogether that of the Stanwick, the kernel is bitter, showing how very divided the cross has been." It was named by the Committee the *Victoria Nectarine*, and was awarded a First-class Certificate.

We have only to add that by a clerical error its flowers have been described as *large*, like those of the Stanwick; whereas they are *small*, and exactly like those of the *Violette Hâtive* Nectarine, and in our present plate the artist has fallen into the same error. In size it is large, having been grown in pots in the past season 9 inches in circumference. In shape it is more flattened than the Stanwick, and its colour when exposed to the sun nearly as deep a red as that of the *Violette Hâtive*. Its season may be reckoned from the 10th to the 20th of September, varying in accordance with soil, position, and season. Seedlings have been raised from it which are likely to bear next season, so that after a very long period of a sort of stagnation in our varieties of Nectarines, the *Elruge* and *Violette Hâtive*, our two favourite varieties, having been in cultivation upwards of a century, we are likely to have a new race, more rich and saccharine in their flavour than the above-mentioned sorts.



Victoria Nectarine .

THE METROPOLITAN EXHIBITIONS.

ROYAL HORTICULTURAL SOCIETY, *Sept. 9th.*—In the department for cut flowers there was a complete “rush,” and it was necessary to extemporise tables to accommodate the numerous subjects. Dahlias were very much finer than at the Crystal Palace, and it is said they were even in better condition at Brighton a few days after this date, while an extensive batch of seedlings were displayed. Fruit was not quite so numerous as at the Palace, but it was very fine indeed. One old fruit-grower told me he had never before seen such fine Plums, while Peaches were of surpassing size.

With cut blooms of Hollyhocks, Mr. W. Chater, of Saffron Walden, took the first prize for twelve varieties; second, Messrs. Minchin & Son, Hook Norton; third, Messrs. Paul and Son, Cheshunt. A few of the best flowers were Rev. J. Dix, Prince of Wales, Princess, George Young, Macrantha, Decision, Minerva, Invincible, Warrior, Acme, and Carus.

Mr. R. H. Betteridge, of Abingdon, was first in both Classes of Asters for quilled and tasselled or flat-petalled flowers, twenty-four blooms being staged in each Class. Mr. C. Wyatt, gardener to H. Willis, Esq., of Epsom, was second in both divisions; and Mr. C. Sandford, gardener to T. Thomasset, Esq., Walthamstow, was third in each Class.

With twenty-four spikes of Gladiolus, Messrs. Youell & Co., Great Yarmouth, were first with a collection very similar to those exhibited by them at the Crystal Palace, some splendid spikes of flowers being among them; second, Mr. J. Standish, with a group of his fine seedlings; and, third, Mr. G. Prince, Market Street, Oxford, with spikes of the leading French hybrids. In the Class for twelve spikes, exhibited by Amateurs, Mr. J. Sladden, of Ash-next-Sandwich, was first with fine spikes of Hector, Volunteer, Prospero, and Lord Clyde (seedlings of 1863, of his own production, all shades of scarlet and crimson), Madame Priest, Le Poussin, Couranti fulgens (shades of scarlet and carmine), and others. Second, Mr. C. J. Perry, Castle Bromwich, Birmingham, who had Premices de Montrouge, Achille, Raphael, Le Poussin, Janire, Mazeppa, Jeanne d'Arc, Sulphureus, Madame Vatry, Marie, and a seedling. Third, Rev. H. Dombrain, of Deal, with Victor Verdier, Lucifer, Earl of Carlisle, Lord Warden, Orange Boven, Endymion, Lemonade, Mrs. Reynolds Hole, Mrs. Dombrain, Mrs. Livingston, Bridesmaid, and Viola. Besides these a large miscellaneous group was staged by Messrs. Youell & Co., prominent among which, by its striking colour, were bunches of *G. Brencleyensis*, of which variety immense numbers are grown by this firm, who seem also to be the largest growers of Gladiolus in the present day.

One collection only of Phloxes, in twenty-four varieties, appeared in Class 6. They were from Mr. Turner, of Slough, and comprised the best of the herbaceous varieties grown.

With stands of twenty-four cut Verbenas, in bunches of five trusses each, Messrs. S. Perkins & Son, of Coventry, were first; second, Mr. C. J. Perry, of Birmingham; third, Messrs. W. Minchin & Sons, Hook Norton, Oxon. The varieties in Messrs. Perkins' stands were identical with those at the Crystal Palace. The flowers were very fine indeed; no trace of injury or age could be detected among any of the trusses. Mr. Perry had some seedlings in his stand that promised to be valuable acquisitions.

Mr. Turner, of Slough, was first with a splendid collection of Dahlias in forty-eight varieties. It was composed of the following:—Norfolk Hero, Andrew Dodds, Mr. C. Waters, Donald Beaton, Hon. Mrs. Trotter, Warrior, Sidney Herbert, Miss Pressly, Mrs. Church, Mr. Stocken, Criterion, Garibaldi, Princess of Prussia, Midnight, Madge Wildfire, Mrs. Bush, Grand Master, Triomphe de Peq, Goldfinder, Pre-eminent, Lord Cardigan, Beauty of Hilperton, Hugh Miller, Lord Derby, Delicata, Mrs. W. Pigott, General Jackson, Sir George Douglas, Lady Popham, Bob Ridley, Mrs. Henshaw, Earl of Shaftesbury, Chairman, Juno, Pioneer, Charlotte Dorling, Lord Clyde, Volunteer, George Elliot, Umpire, Cygnet, Mauve Queen, Lord Palmerston, and seedlings. Second, Mr. J. Keynes, Salisbury, with Edward Purchase, Juno, Lord Derby, Disraeli, Willie Austin, George Elliot, John Keynes, Miss Henshaw, Goldfinder, Harlequin, King of Sweden, Model, Earl Shaftesbury, Golden Drop, John Wyatt, Annie Keynes, Donald Beaton, Fanny Purchase, Garibaldi, Jenny Austin, Pauline, Criterion, Lord Clyde, Miss Herbert, Delicata, Souter Johnny, Lady L. Paulet, Norfolk Hero, Leopard, Lilac Queen, Regularity, General Jackson, Earl Pembroke, Marquis of Bowmont, A. Dodds, Hon. Mrs. Trotter, British Triumph, Count Cavour, Hugh Miller, Bob Ridley, Sir G. Douglas, C. Dorling, Cherub, Baron Taunton, Lord Palmerston, and seedlings. Third, Mr. J. Cattell, of Westerham. With twenty-four blooms Mr. Turner was again first, and Mr. Keynes second; Mr. J. Perkins, of Market Square, Northampton, being third. The flowers in this Class were but a repetition of the varieties just given. With eighteen Fancies Mr. Keynes was first; Mr. Turner second; and Mr. H. Legge, of Edmonton, third. These three stands contained fine blooms of Harlequin, Countess of Bective, Pauline, Starlight, Elegans, Queen Mab, Confidence, Lady Paxton, Miss Jones, Mrs. Crisp, Norah Creina, Madame Sherrington, Summertime, Fairy Queen, Mrs. C. Kean, Countess of Shelburne, Pluto, Zebra, Garibaldi, Rev. J. Dix, Triomphe de Roubaix, Mrs. Wickham,

Duchess of Kent, Leopold, Oliver Twist, The Flirt, The Cure, Elizabeth Mary Lander, Prince of Wales, Gloire de Kain, and Gem.

In the two Classes in which amateur growers exhibited the flowers were very fine, and the competitors as numerous as ever. With eighteen blooms Mr. H. Thorneycroft, Floore, near Weedon, was first; second, Mr. T. Charlton, Kibworth, near Leicester; third, Mr. W. Corp, Milford, near Salisbury; and an extra prize to the Rev. C. Fellowes, Shottesham Rectory, near Norwich. With twelve Fancy kinds, the Rev. C. Fellowes was first; second, Mr. W. Corp; third, Mr. J. Sladden, of Ash-next-Sandwich; and an extra prize to Mr. C. J. Perry, Castle Bromwich, Birmingham.

In the Miscellaneous Class a first prize was awarded to Mr. C. Turner for a collection of cut Roses; a second prize to Messrs. Paul & Son; and a third prize to Mr. G. Clarke, of Brixton, for the same. Good examples of the following were contained in these collections: *Senateur Vaisse*, *Souvenir de Leveson Gower*, *Louis XIV.*, *Madame Furtado*, *Lord Clyde*, *General Washington*, *Jules Margottin*, *Souvenir de Malmaison*, *Comtesse Cécile de Chabrilant*, *Baron Gonella*, *Gloire de Santenay*, *Général Jacqueminot*, *Pourpré d'Orleans*, *Celine Forestier*, *Catherine Guillot*, *Maréchal Vaillant*, *Madame Falcot*, *Gloire de Dijon*, *François Lacharme*, *Madame C. Crapelet*, *Narcisse*, *Acidalie*, and *Victor Verdier*. The whole of these varieties seemed to prove themselves to be valuable late autumn-flowering kinds. Extra prizes were also awarded to Messrs. W. Cutbush & Son, of Highgate, for a collection of very fine *Pæony*-flowered *Asters* in pots; and to Mr. J. Standish, for a collection of cut *Gladiolus*. Messrs. James Carter & Co., of Holborn, had specimens of miniature orange and dwarf striped French *Marigolds*, the latter a remarkably fine and showy strain; also of orange and lemon African *Marigolds*. They also had some splendid blooms of double *Zinnias*, *Asters*, *Helichrysums*, &c. Mr. J. Salter, of Hammersmith, had a group of hardy herbaceous and variegated plants ranged as a ribbon-border. Mr. Barker, of Godalming, had a stand of *Tropæolum* blooms, specimens of *Cupressus Barkeri*, and a Weeping Cypress. From Mr. Whiting, of the Deepdene, near Dorking, came a collection of Potatoes composed of round and kidney kinds. Of the former were *Daintree's Earliest*, *Golden Prolific*, *Early Shaw*, *Dalmahoy*, *Fortyfold*, *Red Regent*, *Ormskirk*, *Napoleon*, *Wellington*, *Cheltenham*, and *Jersey Blue*. Of the latter were *Ashleaf*, *Myatt's Prolific Ashleaf*, *Jackson's Ashleaf*, *Sutton's Early*, *Racehorse*, *Eugénie*, *Webb's Imperial*, *Brickley*, and *The Fluke*. Messrs. Veitch and Bull also contributed collections of rare and handsome-foliaged plants, the former having examples of *Lilium auratum* in flower, and also *L. nilgherriense*, from India.

The seedling *Dahlias* and many other matters came under the cognizance of the Floral Committee. Of the former a great number were contributed. First-class Certificates were awarded to Mr. H. Legge, of Edmonton, for *White Perfection*, a pale cream white flower of considerable merit; and for *The Bride*, a tipped variety, having black ground with an edging of purple; to Mr. Keynes, Salisbury, for *Anna Keynes*, also a bluish white ground flower tipped with lilac; and to Mr. G. Wheeler, of Warminster, for *Coronet*, violet, with a mixture of purple; a large, bold, and full flower. Second-class Certificates were awarded to Mr. G. Wheeler, for *Watty*, a large bright crimson flower; to Mr. Keynes, for *Samuel Bartlett*, bluish, striped with crimson, and for *Magpie*, rosy purple ground, tipped with white; to Mr. Hopkins, Brentford, for *Brunette*, bright apricot colour, heavily laced with carmine crimson; to Mr. Burgess, of Chelsea, for *Chelsea Hero*, fawn colour, tinged with peachy lilac; to Mr. H. Legge, for *Enchantress*, pale apricot, tipped with rosy carmine; and to *Roundhead*, purple maroon; to Mr. C. Kimberley, of Coventry, for *Messenger*, light rosy lilac, heavily striped with rosy purple; to Mr. C. J. Perry, of Castle Bromwich, Birmingham, for *Sylph*, bluish, suffused with lilac; to Messrs. Bragg & Co., for *Useful*, orange crimson, and for *Garibaldi*, orange red; to Mr. C. Turner, for *Prince of Wales*, pale yellow; and to Mr. Collier, Bethnal Green Road, for *Annie*, shaded maroon crimson, tipped with white. The other awards comprised a First-class Certificate to Mr. William Dean, Bradford Nursery, Shipley, for *Cionidium Moorei*, a handsome notted-veined species from Australia; to Mr. Bull, of Chelsea, for *Pteris pellucida* and *Adiantum cardioclæna*, two beautiful Ferns; and to Messrs. E. G. Henderson & Son, for *Centaurea argentea*. Second-class Certificates to Mr. Standish, of Ascot, for *Gladiolus Charles Davis*, a rich and showy scarlet; and to Messrs. Veitch & Son, for *Cattleya exoniensis*, a cross between *C. Mossiæ* and *Lælia purpurata*. Labels of Commendation were awarded to Mr. Standish for three varieties of *Gladioli*—viz., *Randle Jackson*, a beautifully-marked rose variety; *Etna*, a glowing scarlet; and *Mrs. Dix*, a pale lilac-streaked flower. Messrs. Veitch & Son received a Special Certificate for their group of ornamental plants, and Messrs. E. G. Henderson & Son the same for *Pompone Dahlias*, tree *Ivies*, and variegated *Pelargoniums*.

The Fruit Show was neither so extensive nor so general as at the Crystal Palace, though the examples staged in their several classes were unusually fine. With collections of fruit in eight dishes, Mr. C. Turner, Slough, was first, having *Washington Plums*, *Brown Turkey Figs*, *Incomparable* and *Walburton Admirable Peaches*, *Warner's Red Grape Currant*, *Williams' Bon Chrétien Pears*, *Morello Cherries*, and *Pitmaston Orange Nectarines*. Second,

Mr. A. Henderson, Trentham Gardens; third, Mr. W. Kaile, gardener to Earl Lovelace, Ripley, Surrey. With four dishes of Peaches, Mr. T. Dawson, gardener to Earl Cowper, Panshanger, was first; second, Mr. A. Henderson, Trentham; third, Mr. T. Benning, gardener to H. Brandreth, Esq., Houghton Hall, near Dunstable. With a single dish of Peaches Mr. Rust, gardener to the Right Hon. R. Sullivan, Fulham, and Mr. Kaile, gardener to Earl Lovelace, were equal first, the former having splendid fruit of Walburton Admirable, the latter Barrington, the size of the fruit being astonishingly large; second, Mr. T. Dawson, Panshanger; equal third, Mr. T. Rutland, gardener to Capt. Peploe, Hereford, and Mr. S. Snow, gardener to Countess Cowper, Silsoe, Beds; and an extra prize to Mr. J. Westcott, the Gardens, Dulwich House. Very fine fruit of the following were displayed in these two Classes—viz., Vanguard, Galande, Grosse Mignonne, Noblesse, Royal Charlotte, Improved Admirable, Chancellor, Late Admirable, Royal George, and Champion. With four dishes of Nectarines, Mr. T. Dawson was first; second, Mr. A. Henderson; third, Mr. F. Rutland. Among these were good specimens of *Violette Hâtive*, Newington, Pitmaston Orange, Elruge, Brugnion, Red Roman, and Balgowan.

With three dishes of Figs Mr. A. Bousie, gardener to Lord Taunton, Stoke Park, Slough, was the only competitor. With a single dish Mr. T. Bailey, gardener to T. T. Drake, Esq., Shardaloes, Amersham, was first; second, Mr. J. Sayers, gardener to E. Ellis, Esq., Epsom; third, Mr. S. Snow, gardener to Countess Cowper, Silsoe. Brown Turkey, White Genoa, and Brunswick were the varieties shown.

In the Class for three dishes of Cherries there was no competition. With a single dish Mr. S. Snow was first; second, Mr. C. Turner, Slough; third, Mr. R. Budd, gardener to Earl Darley, Gravesend; and an extra prize to Mr. R. H. Betteridge, Milton Hill, Abingdon. These consisted of Morello, Kentish, and Florence.

With a single dish of Plums Mr. S. Snow was first; second, Mr. J. Wright, gardener to Mrs. Ramsden, Twickenham; third, Mr. A. Alves, Southarrow, Bromley, Kent. With four dishes the first prize was also taken by Mr. S. Snow; second, Mr. Cox, gardener to W. Wells, Esq., Redleaf, Panshurst; third, Mr. T. Bailey, Shardaloes; and extra prizes to Mr. R. Budd, Gravesend, and to Mr. J. Sayers, Epsom. Such a show of Plums was scarcely ever seen, the fruit being extraordinarily fine. The leading kinds were Magnum Bonum, Diamond, Cox's Golden Drop, Pond's Seedling, Goliath, Jefferson, Green Gage, Washington, Kirke's, and Reine Claude de Bavay. From one competitor, Mr. Wilson, came fine fruit of Brady's Green Gage, Waterloo, Golden Drop, and Fulton (a sort in the way of Washington), all from trees in pots grown in an orchard-house not artificially heated.

With three dishes of dessert Apples Mr. A. Bousie, Stoke Park, was first; second, Mr. J. Mortimore, Carshalton; third, Mr. W. Wren, gardener to G. Purser, Esq., Carshalton. Extra prizes to Mr. G. Grover, Hammersmith, and to Mr. J. Wright, Twickenham. The best varieties were Cox's Orange Pippin, King of Pippins, Downton Pippin, Old Nonpareil, Ribston Pippin, Cellini, Fearn's Pippin, Duchess of Clarence, Kerry Pippin, Nonesuch, Col. Waugh, Devonshire Quarrender, Esher Pippin, Court of Wick, Ball's Golden Reinette, Cornish Gilliflower, Blenheim Orange, and Golden Pippin. With three dishes of Apples for kitchen purposes, Mr. S. Snow was first; second, Mr. H. Anstiss, Chiswick; third, Messrs. G. & J. Lane, St. Mary's Cray; and extra prizes to Mr. J. Mortimore, Carshalton, and to Mr. A. Bousie, Stoke Park. These consisted of Baltimore, Reinette du Canada, Dumelow's Seedling, Waltham Abbey Seedling, Grenadier, Cox's Pomona, Hollandbury, English Codlin, Emperor Alexander, Lewis's Incomparable, Lord Suffield, Lord Derby, Hawthornden, Scarlet Admirable, Dutch Codlin, Royal Russet, Duchess of Oldenburgh, Cellini, Blenheim Orange, Alfriston, Chancellor, Golden Noble, Kentish Fillbasket, Cliford's Golden Harvey, Lord Nelson, Cumberlean, London Pippin, and Yorkshire Greening.

With three dishes of dessert Pears Mr. W. Wren, Carshalton, and Mr. G. Wilson, Gishurst Cottage, Weybridge, were equal first, the latter having *Maréchal de la Cour*, *Louise Bonne*, and *Bœurré d'Anjou* (from trees grown in pots); second, Mr. H. Beasley, The Gardens, Twyford Abbey, Acton; third, Mr. J. Mortimore, Carshalton; and an extra prize to Mr. H. Anstiss, Chiswick. Besides the sorts already mentioned were *Duchesse d'Angoulême*, *Bœurré Bose*, *Marie Louise*, *Crasanne*, *Chaumontel*, *Bon Chrétien*, *Napoleon*, *Glou Morceau*, *Belle et Bonne*, *Bœurré Diel*, *Bœurré Rance*, *Comte de Lamy*, *Van Mons Léon le Clerc*, *Gansel's Bergamot*, *Albertine*, *Bœurré d'Amanlis*, and *Poire Pêche*.

In the Miscellaneous Class prizes were awarded to Mr. A. Henderson for a box of Moorpark Apricots, grown at Trentham Gardens; for six dishes of Currants to Mr. Tivey, gardener to L. Ames, Esq., Hyde, near St. Alban's—viz., Raby Castle, Old Champagne, Red and Black Naples, Red Grape, and White Dutch; to Mr. J. Leslie, for a basket of Ridge Cucumber; and to Messrs. H. Lane & Son, for Grapes and orchard-house trees in pots.

Of seedling fruits, there was a yellow-fleshed Peach from Mr. Rust, gardener to the Right Hon. L. Sullivan, which was said to be late and good; a Nectarine from Mr. T. Bailey, called *Shardaloes*, which was considered not to be better than the *Violette Hâtive*; a promising black Grape, in the way of *Snow's Muscat Hamburg*, from Messrs. Lucombe,

Pince, & Co., of Exeter; a large-berried, grizzly, or rather pale amber Grape not in good condition from Mr. Melville, sweet and fleshy, but considered objectionable in colour; and a large round-fruited Chinese purple Egg Plant, or Aubergine, was shown by Mr. Standish, of Bagshot.

A very highly interesting collection of Grapes came from the Society's Garden at Chiswick. Among Black kinds were the Frankenthal, one bunch of which weighed 2 lbs.; Barbarossa, 4 lbs.; Black Mill Hill and Dutch Hamburgs, one bunch of the last weighing 1 lb. 9 ozs.; Black Monukka, 3 lbs. 4 ozs.; Black Prince, Black Morocco, Esperione, Burchardt's Prince, weighing 2 lbs. a bunch; Morocco Prince, Muscat Hamburg, Muscat Noir de Jura, Oldaker's West's St. Peter's, weighing 1 lb. 8 ozs. a bunch; Violet Frontignan, Strawberry, Gros Colman, Prune de l'Herault, and Black Corinth. Of White sorts there were Muscat of Alexandria, Golden Hamburg, one bunch of which weighed 2 lbs.; Royal Muscadine, 1 lb. 6 ozs.; Raisin de Calabre, Trebbiano, Reeve's Muscadine, White Frontignan, White Nice, Ward's Early, and some Chasselas variety. Among grizzly, or rose-coloured kinds, were Abhee, Chasselas Rose de Falloux, De Candolle, and Tokay des Jardins. Among these the Abhee and Golden Hamburg were beautiful bunches, especially the latter, which was well ripened and without speck or blemish. These were cut from the Vines in the great conservatory, the crop in which this year has been in no ways behind its predecessors either in size, quantity, or quality. Quo.

AWARDS OF THE ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

July 1.

ACROPHORUS AFFINIS.—Messrs. Veitch & Son [S.C.C. and S.B.].—A large-growing decomposed Fern from Borneo, admirably suited by its creeping rhizome and drooping fronds for large baskets. It is a pale green colour and shining, with finely-cut divisions, which, however, overlap each other. Its fructification is of a davalloid character.

ADIANTUM GHIESBREGHTII.—Messrs. Backhouse & Son [C. and B.].—A drooping-habited and very handsome species of Maidenhair Fern, the ample trapezio-oblong pinnules of which were of a deep green colour, and lobed on the margin. It was a fine fresh-looking species of very ornamental character.

ASPLENIUM CONSIMILE.—Messrs. Veitch & Son [C. and B.].—A sturdy-looking Chilean Fern with short pinnate fronds, having thick, coriaceous, serrated, auriculate pinnae.

ASPLENIUM ELEGANTULUM.—Mr. Standish, Ascot [F.C.C. and S.K.].—A very elegant dwarf Fern, with the aspect of an enlarged and elongated *A. fontanum*. The fronds were lanceolate in form, and bipinnate, with roundish toothed pinnules. It will be a pretty little hardy evergreen Fern, and just the thing for glass cases kept in cool situations.

ARAUCARIA RULEI.—Mr. Bull [S.C.C. and S.B.].—The plants exhibited were young just-imported seedlings of this very fine new Caledonian conifer, which is remarkable for having the broad flat leaves evenly produced all round the branches, and incurved or pressed against them, so as to lie imbricated over each other, and thus to give the branches considerable bulk.

BOMAREA MULTIFLORA.—Messrs. Veitch & Son, Exeter and Chelsea [F.C.C. and S.K.].—A graceful twining greenhouse perennial, furnished with lance-shaped leaves about 4 inches long, and 1½ inch broad, the stems terminating in an umbel of about a dozen flowers, which were orange red in the sepaline divisions, and yellow dotted internally with crimson in the longer and broader petaline segments. It had been introduced from Peru.

CATTLEYA ACLANDI-LODDIGESII.—Messrs. Veitch & Son [F.C.C. and S.K.].—A plant of especial interest, being a further instalment of Messrs. Veitch's batch of hybrid Orchids. It was shown as *Cattleya hybrida*; but as this name is not sufficiently distinctive from their other hybrid Cattleyas, it is better to apply to it the joint titles of its parents. It was a very beautiful plant, of dwarf habit, with short stems, supporting a pair of oblong fleshy leaves, and two-flowered racemes of large finely-coloured flowers. The rosy-tinted sepals and petals were spotted over with crimson; the broad column buried between the erect side lobes of the lip was of a deep rose, these lateral lobes themselves being more widely separated at the front than at the back, rosy outwardly and creamy yellow at the tip; while the middle lobe was roundish heart-shaped with a sort of claw, and so much recurved at the edge as to give it a cuneately-flabellate appearance, the colour being creamy yellow at the hinder part and rosy marked with deeper rose veins in front.

DICTYOGRAMMA JAPONICA.—Messrs. Veitch & Son [F.C.C. and S.K.].—A bold-habited Fern from Japan, shown under the older names of *Gymnogramma japonica*. The fronds were 2 to 3 feet high, bipinnate, and of a bright green colour; the pinnae of a long lanceolate form, and of considerable size. It had something of the character of *G. javanica*, but differs in its netted veins.

DISA GRANDIFLORA SUPERBA.—Mr. Watson, gardener to C. Leach, Esq., Clapham Park [S.C.C. and S.B.].—This was the fine variety mentioned in vol. ii., page 617. There were shown in company with it some well-managed plants of the species itself, and of a variety affording some distinctions of colouring, but on the whole inferior to the variety *superba*.

FUNKIA sp.—Mr. Standish [S.C.C. and S.B.].—A pretty herbaceous perennial with thick glaucous ovate leaves, having long channelled footstalks, and the flowers drooping, French white, several produced on an erect spike.

GARDENIA FLORIDA VARIEGATA.—Messrs. A. Henderson & Co., Pine Apple Place [C. and B.].—A well-marked variegated *Gardenia* obtained from Japan. The leaves are very boldly margined with cream colour in an irregularly sinuated way, the variegation often passing inwards as far as the midrib.

GYMNOGRAMMA CHRYSOPHYLLA, var.—Rev. J. G. C. Fussell, The Chantry, Frome [C. and B.].—This was a remarkable specimen of good cultivation, the plant forming an immense mass some 4 or 5 feet through, and in the most perfect health. It was one of the larger-growing seedling forms of Gold Fern, of which many exist in gardens.

HYMENOPHYLLUM VALVATUM.—Messrs. Backhouse & Son [F.C.C. and S.K.].—A beautiful narrow-fronded drooping Fern, the bipinnatifid fronds of which were linear-oblong, and made up of linear obtuse lobes connected by the wing of the primary and secondary rachides.

LIGUSTRUM sp. *FOL. VARIEGATIS*.—Messrs. Veitch & Son [C. and B.].—A dwarf shrub with small ovate leaves irregularly blotched with yellow. When more fully grown it may probably become a useful ornamental shrub.

LINDSÆA CRENATA.—Messrs. Backhouse & Son [C. and B.].—A very elegant pinnate Fern, the crowded Maidenhair-like pinnae of which were crenately toothed at the edge.

LINDSÆA STRICTA.—Messrs. Backhouse & Son [S.C.C. and S.B.].—A pale green Fern with bipinnate fronds, having small oblong recurved pinnules thickly placed along each side of the rachis of the few primary pinnae, and having very much the aspect of a stiff pallid Maidenhair.

OUVIRANDRA FENESTRALIS.—Mr. Bull, Chelsea [C. and B.].—A well-managed plant of this curious and rare aquatic, exhibited in a flowering state, the forked spike studded with little sessile white flowers just appearing above the water surface.

PELARGONIUM (Variegated) *ITALIA UNITA*.—Messrs. E. G. Henderson & Son [F.C.C.].—Also noticed in vol. ii., page 676. The best of the Silver-edged tricolor zonale varieties.

PELARGONIUM (Scarlet) *LADY COWPER*.—Mr. Francis, Hertford [C.].—A variety of very dwarf habit, furnished with small bright green foliage, and producing bright scarlet flowers. It was commended for its dwarf habit, and its useful decorative properties.

PELARGONIUM (Variegated) *LUCY GRIEVE*.—Messrs. E. G. Henderson & Son [F.C.C.].—A remarkably handsome variety, more highly-coloured in the zonale marking than Mrs. Pollock, which it resembles rather than Sunset. It will be found further noticed in vol. ii., page 676. The best of the Gold-edged tricolor zonale varieties.

PINK, REV. *GEORGE JEANS*.—Mr. Turner, Slough [F.C.C.].—A remarkably fine Pink, full-petalled, of extra large size, with the petals well arranged, the white clear, and the lacing forming a heavy edge of rosy crimson.

PRIMULA SINENSIS FOL. VARIEGATIS.—Messrs. E. G. Henderson & Son [C. and B.].—A very pretty variegated-leaved Chinese Primrose, in which the variegation was well marked. The leaves have a deep green disk, which, in the younger ones, is margined by yellowish-green, which becomes creamy yellow in the mature state.

PTERIS SERRULATA CRISTATA.—Messrs. Veitch & Son [F.C.C. and S.K.].—A Japanese variety of a well-known and most useful hardy greenhouse Fern, in which all the long ribbon-like divisions of the frond were tipped by a crispy tassel. It will be an excellent Fern for small glass cases.

QUERCUS sp.—Mr. Standish [S.C.C. and S.B.].—A fine-looking Oak with broad, obovate, sinuately-lobed leaves.

QUERCUS sp.—Mr. Standish [C. and B.].—An odd-looking plant, having the pinnatifid leaves attenuated as if depauperated. If it proves a free-growing hardy tree, this singular foliage will give it considerable interest.

SELAGINELLA INVOLVENS.—Mr. Standish, Ascot [S.C.C. and S.B.].—A very elegant dwarf-habited species of the circinate group, and forming another excellent subject for a Ward's case.

STATICE FROSTII.—Mr. Frost, gardener to Lady Grenville, Dropmore [S.C.C. and S.B.]. A stout-growing hybrid, of which some account will be found in vol. i., page 693. It was raised between *S. Holfordii* and *S. imbricata*, and formed a mass of lyrate pinnatifid downy leaves, from among which grew up the winged flower-stems, supporting large corymbose heads of white flowers with deep purple calices. The flowers were richly coloured, and the habit all that could be desired.

TRICHOMANES ALATUM.—Messrs. Backhouse & Son [C. and B.].—A rather large-growing bipinnatifid Fern, which has the appearance of being pinnate with pinnatifid-toothed pinnae,

but is really bipinnatifid from the rachis being winged. It may be compared with *T. scandens*.

TRICHOMANES FLORIBUNDUM.—Messrs. Backhouse & Son [C. and B.].—A fine pinnate species, not, however, shown in a mature or fructified state. Its fronds bear a few broadish ribbon-shaped pinnae, which, when perfect, are crowded along the margin by the fruit-cups, from which long hair-like receptacles project.

TRICHOMANES KAULFUSSII.—Messrs. Backhouse & Son [S.C.C. and S.B.].—An erect-habited tall Fern, in which the fronds were pinnatifid with winged rachides and oblong undulately-toothed lobes.

TRICHOMANES SCANDENS.—Messrs. Backhouse & Son, York [F.C.C. and S.K.].—A beautiful drooping-fronded West-Indian Fern, with remarkably elegant, finely-cut, tripinnatifid broad fronds, the divisions of which were much drawn out or attenuated.

WOODSIA POLYSTICHOIDES VEITCHII.—Mr. Standish [S.C.C. and S.B.].—A dwarf-tufted Japanese Fern with a greyish aspect, the fronds being densely clothed with whitish hair-scales. They are long, narrow, pinnate, with simple falcate subauriculate pinnae. This is very distinct from all the other Woodsias known in cultivation.

REVIEW.

The Gooseberry-Grower's Register : or an Account of the Different Gooseberry Shows Held in Lancashire, Cheshire, Staffordshire, Yorkshire, Derbyshire, Nottinghamshire, Other Parts of the Kingdom, and the United States of America, for the Year 1863.

THE "Gooseberry-Grower's Register" boasts of an antiquity which it would puzzle the most inveterate of Dryasdusts to discover. Ever since we can remember, and possibly as long as any of our grandfathers could, this most remarkable of Annuals has made its appearance in the autumn of each succeeding year with a regularity of which more pretentious publications may justly be proud. What was its beginning or wherever will be its ending we believe there is no man living can tell. This is by far the queerest book in garden literature. Its tall quaint look, its unique title-page on which is delineated a representation of the "heaviest berry" of the season, its thoroughly business-like and unmistakable contents, must be seen to be judged of. One of these characteristics only can we convey to our readers, and that we shall endeavour to do by a few extracts.

We must state first of all that this is a sort of "Racing Calendar" among the Gooseberry Fancy. Every berry that has been exhibited at every Show throughout the midlands of England, together with the name of the exhibitor and the weight of the berry, are recorded in a tabular form. The wholesome way in which these shows are managed may be gathered from the following intimation on the back of the title-page:—

"Notice is hereby given, that no shows will be published in the Register where the undermentioned persons exhibit until they have paid up their following defalcations:—DANIEL BLOORE, defaulter to the Cross Keys Show, Hanley, Staffordshire, 1862. WILLIAM HOBSON, of Pear Croft, Sheffield, defaulter to the publisher for thirty bound Registers, supplied September 27th, 1861." Very good and very wholesome.

Towards the end of the book there is some excellent information on seedling Gooseberries exhibited at the shows and on seedlings "going out," which we shall here transcribe:—

"George Bratherton's Red Seedling, Foreman,—29 dwts. 12 grns. Colour dark red, with purplish-tinted veins, a very long three-veined, well-formed berry, with a few spines. Two large berries and a pair of Twins—45 dwts. 15 grns.—were exhibited of this most promising variety. Distinct.

"Thomas Pilkington's Red Seedling, Farmer—24 dwts. 4 grns. Previously described.

"Joseph Leicester's Red Seedling, Smoker—22 dwts. Colour dark purplish-red, very rough, a long good-shaped three-veined berry. Distinct.

"Joseph Bayley's Red Seedling, Makeroom—22 dwts. 7 grns. Colour and form of Wonderful, but rough. Distinct.

"William Jones's Red Seedling, Maccaroni—21 dwts. 22 grns. A fine-formed dark rough red. Distinct.

"George Wilkinson's Red Seedling, Registrar—20 dwts. 21 grns. Previously described.

"Joseph Walton's Yellow Seedling, Garibaldi—22 dwts. 19 grns. Previously described.

"Edward Eardley's Yellow Seedling, Hannah—22 dwts. 5 grns. A fine-formed three-veined berry, similar in colour to Leader, and smooth, with broad light yellow veins, and fine supple rind, very promising and distinct.

"George Wilkinson's Yellow Seedling, Oyster Girl—22 dwts. 2 grns. Previously described.

"David Chippindale's Yellow Seedling, Ringer—21 dwts. 15 grns. A long, smooth, dark muddled, yellow berry. Very promising and distinct.

"Francis Soar's Yellow Seedling, Sir Robert—20 dwts. 22 grns. A round-formed light yellow berry. Distinct.

"Joseph Bratherton's Green Seedling, Birchen Lane—24 dwts. Described last year as George Williamson's. This variety was in better condition, and one of the most promising. Distinct.

"Joseph Prophet's Green Seedling Diadem—23 dwts. 8 grns. A smooth bright green, with broad conspicuous light veins, a fine-formed three-veined berry, very promising and distinct.

"George Beckett's Green Seedling, Bravo—22 dwts. 19 grns. Previously described.

"Francis Soars's Green Seedling, Radford—21 dwts. 14 grns. A round bright green. Distinct.

"Wm. Jones's Green Seedling, Spark—19 dwts. 16 grns. Colour and form of Thumper, but very rough. Distinct.

"Joseph Walton's White Seedling, Annie—24 dwts. 12 grns. Previously described.

"Francis Soars's White Seedling, Miss Soars—17 dwts. 5 grns. A long, smooth, dull-coloured white. Distinct.

"T. Shingler's White Seedling, Edna—16 dwts. 2 grns. A greenish-white, a little rough, with puckered rind; deficient of seed. Distinct, but evidently a tender variety.

"The following varieties were not successful in obtaining prizes, but were considered distinct kinds:—Joseph Prophet's red, Lord Audley; William Maddox's red, Benecia Boy; Thomas Bennet's red, Honeywall; Henry Maddox's red, Roughcast; William Holden's yellow, Lady Popham.

JUDGES.—Edmund Salisbury, Melbourne; George Wilkinson, Holmeschapel; John Henshaw, Handforth; Francis Oldfield, Hurdfield; Francis Soars, Nottingham. John Holland, Bradshaw Garden, Chadderton, Manchester, Chairman. Charles Leicester, Crompton Road, Macclesfield, Secretary.

"This Show will be continued as usual, weighing to commence at half-past 12 p.m. All subscriptions for the Seedling Show to be forwarded to Mr. Charles Leicester, Florist, Crompton Road, Macclesfield, on or before the last Saturday in July; and, to avoid disappointment, all seedlings from a distance should be sent the day before the Show, directed for Mr. Charles Leicester, to be left at the Sir John Falstaff Inn, Market Place, Manchester, prepaid, when due attention will be given, and, if distinct and successful, the prizes obtained will be forwarded to the successful parties."

NOTES ON YORKSHIRE SEEDLINGS.—John Firth's Red Seedling, colour and form of Guido, and rough strong veins.

"George Muscroft's Red Seedling, Prince of Wales, resembles Clayton in form, but rough and bright in colour. Distinct.

"John Lodge's Red Seedling, in form of Lumper, but very rough. Distinct.

"John Firth's Yellow, colour of Stella, a long strong vein. Berry distinct.

"John Stafford's Yellow Seedling, Hedgehog, a pale dappled yellow, very rough, distinct, and very promising.

"George Muscroft's Yellow Seedling, a smooth yellow, colour betwixt Leveller and Leader.

"John Lodge's Green Seedling, a muddled green, smooth, very promising. Distinct.

"George Muscroft's Green Seedling, a smooth, light green, in form of Turnout.

"George Muscroft's White Seedling, must try it another year.

JUDGES.—William Duke, Sheffield; George Barrow, Sheffield; Thomas Wingle; Walter Stott. John Gill, Secretary."

While there is much to amuse in looking over this remarkable work, there is yet a touch of pathos too. Towards the close we have the "Obituary," from which we give an extract—"At Clifton, on the 10th December, 1862, SAMUEL HOLT departed this life, aged 84 years. He had been a good supporter of shows for nearly fifty years. He lived respected and died regretted by all who knew him."

We strongly recommend our readers to possess themselves of the "Gooseberry Register," which they may do by sending their address and 1s. 10d. in stamps to Mr. Charles Leicester, Nurseryman, Crompton Road Macclesfield

CALENDAR OF OPERATIONS.

CONSERVATORY.

SPARE no pains to make this house gay and attractive for the next few months. Attend well to the plants in flower. Pick off all decayed leaves and flowers; and as soon as they are beginning to fade remove the plants. Have a good display of Chrysan-

themums; they make a fine show at this dull season. Attend to Camellias coming into flower. See the plants are liberally supplied with water. Keep the foliage of all plants clean. Use no more fire heat than is absolutely necessary. Ventilate freely in the early part of the day when the state of the weather permits,

but guard against cold draughts or winds. Keep everything as clean as possible.

GREENHOUSES.

HARDWOODED PLANTS.—In bad weather look often over the tender species that are liable to injury from damp; see they are in a light and dry part of the house. Give abundance of air when the weather is mild and fair. Water very carefully, and always in the morning. Unless severe frost renders it necessary, do not yet use much fire heat at night. Occasionally during the month a little fire may be lighted in the morning to dry up the damp. **SOFTWOODED PLANTS.**—*Pelargoniums.*—Shift at once all plants that may require it into larger pots, taking care to drain properly. Keep the plants as near the glass as possible to prevent their drawing. Attend carefully to the watering, and see that no plants are watered but those in want of it. The morning is the best time at this season of the year to water. Do not let the temperature fall below 45° at night. In cold damp weather a little fire heat will be necessary. Give all the air possible when the weather permits. *Cinerarias.*—Any plants that may require it shift at once into larger pots. Give them every attention necessary to promote free growth. Give air freely in dry weather. Attend carefully to the watering. Those for early flowering should be kept in a gentle heat. Those for late flowering will do well in a cold pit properly protected from frost. *Calceolarias.*—Pot-off cuttings and seedlings, and shift any plants that require it. Be very careful in watering at this season. *Fuchsias.*—Plants for early flowering next season should be started this month. With proper attention in potting, watering, stopping, tying, &c., they can be grown to any form or size by June next. Pot-off cuttings that are rooted.

STOVE.

Look frequently over the plants, and see they are all clean and neatly tied up. Have the plants in flower arranged so as to show to the best advantage, without injuring the other plants. Attend well to the watering. Maintain a night temperature of from 60° to 65°, and give air freely when the state of the weather permits.

FLOWER GARDEN.

When the plants in the beds have become disfigured by frost, it is advisable to remove them at once out of sight, and fill up the beds with bulbs, hardy-flowering spring plants, or dwarf evergreens. Clean and dig all ber's and borders, and sweep and roll walks. Plant Roses in ground that has been trenched and well enriched with good manure. *Chrysanthemums* against walls, protect from frost. *Dahlias.*—Take up, dry, and store away if not already done. *Tulips.*—Plant about the 9th of the month. Choose a day for doing this. This is a good time to proceed with alterations if any are intended. The stock of "bedding" plants should have air on every favourable occasion. The different kinds of *Geraniums*, which now so justly fill so large a space in the flower garden, require constant attention; as if kept too close they are apt to damp off. These should, if possible, be kept a little warm and dry, more especially the variegated sorts. *Pleasure Grounds.*—The planting of trees and shrubs, and alterations of all kinds, should be prosecuted with energy as long as the weather continues sufficiently mild and open. This should, if possible, be got over in the autumn, and not left till spring. Sweep and clean lawn.

FORCING.

FRUIT.—*Fine Apples.*—The plants for starting in January should now be at rest. Ventilate freely when the weather is fine, and keep the house dry. They will require but little or no water at present. Maintain a night temperature of about 60°, and see the bottom heat does not get below 80°. Plants showing fruit will require a temperature of from 65° to 70° at night, and 80° during the day. Water with tepid water when they require it. Give plants that are swelling fruit liberal supplies of water when they require it, and keep a moist warm atmosphere. Succession plants will not require much attention beyond giving air when the weather permits, if they have a nice steady bottom heat of at least 80°, which is abso-

lutely necessary to insure success. *Vines.*—Keep a moist atmosphere in the early house. The night temperature should not exceed 50° until the buds begin to swell, when it may gradually be raised a few degrees. If the outside border be not heated by hot water, see that it is kept sufficiently warm by fermenting materials. Start a second house, and prune the Vines in others for starting in succession. *Late Grapes.*—Keep the atmosphere of the house as dry as possible and cool. Cover the outside border with some material to throw off the rain and snow. *Peaches and Nectarines.*—The directions given last month for the trees in the early houses are applicable this month for those in late houses. Give the houses all the air possible when the weather is at all favourable. *Figs.*—When the leaves are all off, prune and dress the trees, and tie-in those on trellises. Give air freely in mild weather. *Cherries.*—Procure a stock of young trees from the nurseries, and pot in turfy loam, and in little rotten cowdung, and afterwards plunge the pots in an open situation. *Strawberries.*—Take advantage of dry weather to get these into winter quarters. Some people plunge them flat, and then cover them in bad weather. We prefer ridging as a much better plan, as the soil can be kept dry, the roots are safe from injury, and the plants are easily protected in frosty weather. Put a good batch of plants into a cold pit or vinery to be in readiness for early forcing. *Cucumbers.*—If the plants for winter bearing have been properly attended to, they will now be in a condition to do good work during the ensuing months. Give them some air whenever the weather will permit. Water when necessary. Never leave too many fruit on the plants at one time. Keep a moist atmosphere and a good heat at top and bottom.

HARDY FRUIT.

Pay great attention to fruit in fruit-room. Pick out all the small fruit, and any that are in the least decayed, and keep all the best in single layers on shelves. Winter pruning may at once be commenced. Go over all the standard trees, and cut away all unfruitful, ill-placed branches; also all large spurs. The proper thinning of the spurs is a matter of great importance, and is too often altogether neglected. Proceed with the pruning and nailing of wall fruit trees of all sorts in favourable weather. Prune Gooseberry and Currant bushes. Manure and fork over Strawberry plantations. This is a good time for the making of new, or the renewal of old, fruit-tree borders. Bear in mind thorough drainage is indispensable to success, more especially wherever a retentive subsoil has to be dealt with. In this case, also, the borders should be elevated a little near to the wall to give a slight slope to the borders; but where the subsoil is of a porous open nature, the borders are better made level; as, if elevated, the trees would suffer too much in dry seasons like the past. In planting fruit trees of all kind, take care to spread all the roots out properly, and see the soil is put in properly about them. It is advisable to spread a little short litter over the roots. All standards should be properly secured to stakes.

KITCHEN GARDEN.

If not already done, Carrots, Parsnips, Beet, Salsafy, Scorzoneria, &c., should be all taken up in dry weather and stored away. Dress and earth-up Artichokes for the winter. Cut off the stem of Asparagus close to the ground. Clear off all weeds, and cover the beds with a good coat of manure. Cauliflowers that are heading should be taken up, most of the leaves stripped off and laid in by their heels in dry soil in a pit that can be kept dry and cool: in this way they will keep several weeks. *Parsley.*—Protect by glass or otherwise. *Endive.*—Tie-up and blanch. *Lettuce.*—Protect. *Celery.*—Earth-up the late crop when dry. In frosty weather cover the ridge with dry litter. *Peas and Beans.*—Make a sowing of each of early sorts on warm sheltered borders. Broccoli should be checked by being lifted a little with a spade, and inclined to the north. When the ground is dry hoe between the rows of Spinach, Cabbages, &c. Clear off all decaying crops. Manure and trench, or ridge all vacant ground. Sweep and clean walks. Plant Box edgings. —M. S.

CLEMATIS FORTUNEI.

WITH AN ILLUSTRATION.

THIS magnificent hardy climber is one of the most recent introductions of Mr. Fortune from Japan, and one of the most remarkable. It has been flowered by Mr. Standish, of the Royal Nursery, Ascot, during the past summer, and at the exhibitions at that season was one of the "lions" amongst new plants. It is indeed a very distinct and very handsome plant, and we owe our obligations to Mr. Standish for the opportunity of figuring it.

As far as can be judged from the aspect of the imported plants, it has very much resemblance to the other Chinese and Japanese species in its habit and general appearance. The leaves of the stem somewhat resemble those of *C. lanuginosa*, and consist of three (occasionally one) coriaceous, cordate, very blunt leaflets; while beneath the flowers is placed, in all the blossoms we have seen, a whorl of six or eight simple (occasionally ternate) stalked leaflets, of similar character to those composing the true leaves, and forming a kind of involucre.

The flowers are quite unique. They are about 6 inches across, double, white, and having a delicious neroli or orange-blossom fragrance. The sepals are not only remarkable for their number, but also for their form, which is oblong-lanceolate, with a small thickened point, and a distinct claw or footstalk an inch long, the broader lamina being about $1\frac{1}{2}$ inch in length. Several (some six or eight) series of these sepals go to form the flower, and in their young state these incurve over the silky tails of the ovaries, much as the florets of the fine varieties of Chrysanthemums are made to do under high cultivation. Gradually, however, they unfold, and the full-blown flowers consist of a broad multiserial border of these peculiar sepals, surrounding a spreading tuft of greenish ovaries, each one terminating in a short caudex or tail, which is silky, from its covering of fine, soft, tawny hairs. The sepals have a central and a few evident lateral reticulating veins. They are slightly downy externally, and the outermost ones are also greenish on the exterior surface; as indeed they are throughout when quite young, but they gradually bleach as the parts become fully expanded, while, as they become older, they acquire a faint roseate tinge. The flowers continue for a considerable time in perfection.

Such is a description of this fine plant, as flowered on the imported specimen, and therefore less perfect than, it may be presumed, it will become when it is brought under the influence of high cultivation, such as English gardeners know how to practise. As a hardy climbing shrub it will have an especial value; but we may also look to see its massive scented blossoms profusely adorning bushes trained for the exhibition-table, when "some new thing" is most urgently required to impart variety to what is year by year becoming more and more drearily monotonous. Why don't the authorities offer prizes to bring out plants which are *not* seen at every show year after year?

M.

NEW HYACINTHS.

IN the FLORIST AND POMOLOGIST of last November, Mr. Cutbush published an article on new Hyacinths. From the perusal of that article the conviction is forced on me that he is not yet resigned to the defeat he sustained at the Royal Horticultural Society's Hyacinth Show in March last.

Averse as I am to controversy, it appears to me, after duly weighing the

matter, that his statement denies my right to honours fairly won, and demands an answer at my hands. The high respectability of Mr. C., and his well-known skill as a horticulturist, renders the task only more imperative.

Mr. C. states that the Judges were "very little acquainted with them" (Hyacinths); that "he is quite convinced that they took no particular notice of the subject, or they would not knowingly have committed such a blunder." Strong words these; we shall see, presently, how far they can be substantiated.

Seldom have I seen such strong statements sustained by so weak an argument. The paper reminds me of the anecdote of the barrister, who, retained in a bad case, found written on his brief, "No case for the defence; abuse the plaintiff's attorney." Mr. C. tells us that there are "some few first-class Judges in whose hands he should be pleased to place his reputation!" No doubt; and in the illustration above chosen, had the defendant been allowed to appoint the judge and jury, he would at least have hoped for a satisfactory verdict. But, thanks to the wisdom of our forefathers, things are not managed in this way in England, neither in the courts of justice nor in the courts of Flora. Although I did not know who the Judges of these flowers were till months afterwards, I do not now hesitate to say that they were thoroughly competent men—men of great horticultural attainments and undoubted probity—men whom those who know them delight to honour. I am surprised again that Mr. C. does not perceive that, in saying his new Hyacinths should have received the first prize, he is the sole authority for this statement, in a case in which he is the *interested* party; whereas, arraigned against him is the opinion of three *disinterested* Judges.

But is it on the ground of novelty or quality that Mr. C. sets up his claim? I remember when at school a clever form-fellow of mine, who, before he entered on an argument, would have his premises granted. In like manner Mr. C. puts his own interpretation on the word *new*, and proceeds to argue from it as if it were an interpretation universally admitted. But this, I apprehend, is not the case. Even the rule which he adopts from the Royal Horticultural Society is unfortunately chosen because it is applied by them to single specimens of plants only, and not to collections of florists' flowers. Every observant visitor to the London flower shows will know that a collection of *new* Roses, *new* Azaleas, and *new* Pelargoniums will not be disqualified on the ground that the varieties "had been exhibited before the Society at a previous meeting." Many reasons might be adduced why a collection of new Hyacinths should not be tested by such a rule; but in the face of the Royal Horticultural Society's practical application of the rule, this appears unnecessary. As to the *novelty* of Mr. C.'s six new varieties, a writer in the "Gardeners' Chronicle" (p. 1012) tells us that among them were "one of nineteen years, one of fifteen years, one of six years, one of four years old!" These surely are not neophytes, but veterans; their ages amounting in the aggregate to forty-four years. On the same authority, the ages of the competing *six* amount to thirty-seven years only! It is true Mr. C. throws a doubt on the accuracy of this writer's information; but as he offers nothing definite in its place, the authority is too high to be disregarded.

Next as to the *quality* of these six "veterans." Would Mr. C. have placed any one of them in a collection of 36 or even 50? A grower and exhibitor of Hyacinths stated recently in my nurseries that he believed he would not. I speak of them now in the state in which they were shown, not doubting that two out of the six will be heard of hereafter.

But surely the Horticultural Society did not offer a premium for new Hyacinths wholly without reference to quality? Their object, judging from their antecedents, undoubtedly was to promote the improvement of a flower—

to encourage progression, not retrogression. The Hyacinth having been longer under cultivation than most other florists' flowers, is now improving, but slowly; and it is too much to expect that six new Hyacinths will appear in any single year, surpassing or differing essentially from those already in existence. Again, this flower is propagated very slowly. It takes at the least from ten to twenty years from the time a seedling blooms till it is placed in the market, and it is usually rare for many years afterwards. Thus new and rare Hyacinths, *if the word new is to be taken in its most restricted sense*, would not only produce a finer exhibition, but promote more surely the true interests of floriculture.

Holding these views, it is with regret that I see the alteration in the Royal Horticultural Society's prize schedule for next spring, wherein the new Hyacinths are restricted to the productions of a single year. I fear, but the sequel will prove, that by thus qualifying a term, the Society is placed on the horns of a dilemma. Six Hyacinths of the current year will no doubt be shown, and the best six the year produces; but it is barely probable that they will in the aggregate surpass those already under cultivation. Should the Judges withhold the prize on the ground of indifferent quality, it will amount to a censure on the rule; if they award it, to a premium on retrogression.

I have endeavoured to discuss this question on broad and open grounds, conceiving that it should not be looked at from the narrow view of personal interests only. Mr. C., like myself, is a born nurseryman, and I willingly bear testimony to his zeal and skill in his profession, and heartily wish him God speed. But questions like these, *which involve the reputation of others*, should, if once started, be thoroughly sifted; they have a powerful bearing on the future. A good reputation is too precious a thing to be puffed away by an inuendo. The Judges should know that there is a moral law equally powerful to uphold the right as to restrain the wrong-doing. If, in this discussion, I have used plain language, it is from no want of courtesy, but because I conceive plain language to be the most proper vehicle for the conveyance of plain truths. But, with every wish to be truly courteous, I confess that I have no sympathy with the *false delicacy* and *affectation* of courtesy, now too prevalent, of surrounding every question with such a cloud of "ifs" and "buts," as to obscure the broad line existing between right and wrong, producing a mischievous confusion of ideas, which cannot be unravelled except by those who are possessed of unusual industry or more than ordinary powers of discernment.

Waltham Cross, N.

WILLIAM PAUL.

REMEDY FOR GRUB IN CARROTS.

IN your July Number of the *FLORIST AND POMOLOGIST* I observed a remedy for grubs in Carrots; and having some years since had the misfortune to have a poor crop of Carrots, I was forced to try something. I hit upon soot, not only for Carrots, but for Parsley, Sea-kale, and many other things. But the question will naturally be, How did, or do you apply it? For Carrots I use it in this manner—I sow soot pretty thickly on the ground where it is intended to sow Carrots, just when I turn the ground over for the last time before sowing, and I turn the soil over as roughly as possible, then sow soot again, but not so thick as the first time. This I work-in with the hoe before sowing the Carrot seed, and I have by this plan had for four seasons continuously splendid crops of Carrots, this season especially.

Parsley I generally sow amongst Onions, and put soot in the ground while

it is in a rough state. I have two crops from the same land, and find the Onions are quite big enough for use; and I could just now mow my Parsley, though I cut a barrowload in July. I have two beds each 30 feet long by 4 broad of it, which are admired by all who see them. I could not grow many things here if I did not use soot in one form or another.

Groby Lodge, Ashton-under-Lyne.

JOHN HAGUE.

BERGAMOTTE ESPEREN PEAR AND OTHER HARDY KINDS ON QUINCE STOCKS.

THIS excellent variety of Pear deserves to be more generally cultivated as a standard, for it is hardy in the midland and northern districts, and a good bearer. Last year it fruited with me for the first time on some small pyramids on quince stocks, and produced abundantly, and it has done the same this year. It is likewise a first-rate Pear as regards flavour. I find the following varieties do well here on quince stocks, and trained as pyramids—namely, Louise Bonne of Jersey, Beurré Langelier, Beurré d'Amanlis panaché, Marie Louise, Williams' Bon Chrétien, Citron des Carmes, Susette de Bavay, and Beurré Diel. The soil here is very stiff and adhesive, but the Pears on quince stocks grow well in it. The following varieties have been tried as pyramids, but do not bear well:—Glou Morceau, Forelle, Duchesse d'Angoulême, Beurré Bosc, Van Mons Léon Le Clerc, and Beurré Bretonneau.

The thermometer denoted 8° of frost here on the morning of the 1st of May, and the Pears on pyramid bushes were either in flower or had just set their fruit. Some spruce branches had been placed round them before the frosty mornings occurred, and saved them from any injury.

Welbeck Gardens.

WM. TILLERY.

FROGMORE LATE PINE STRAWBERRY.

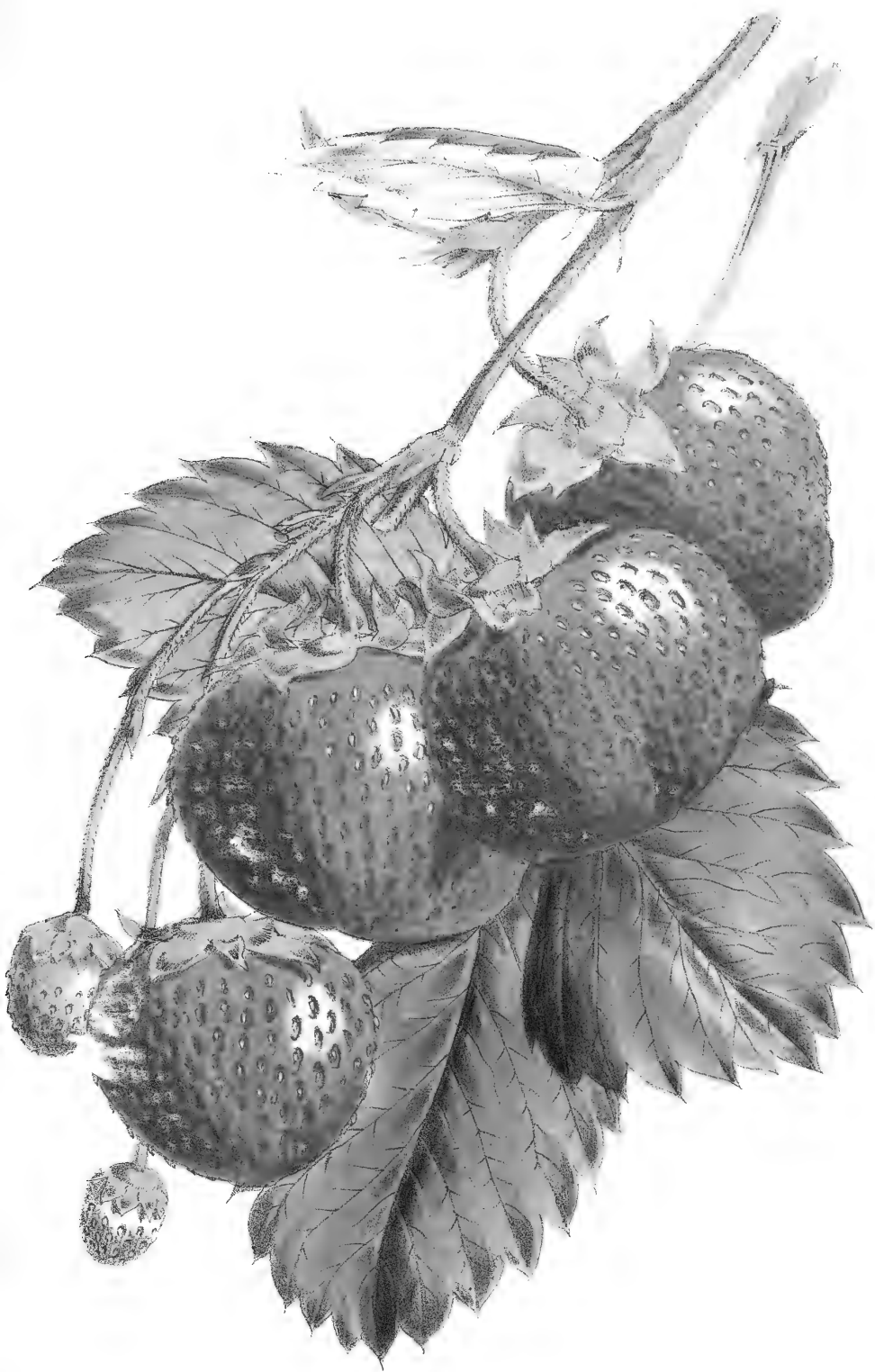
WITH AN ILLUSTRATION.

It is now nearly forty years since the best of all the late Strawberries was raised, and for all that period the Elton has held the ground against all comers. Notwithstanding the merits of this variety, and the universal popularity it enjoyed, it had also its demerits, and one of the greatest, perhaps, was its excessive acidity. However desirable it may be to get a late Strawberry, still one of its requirements is that it be palatable, and a fruit that has too great a preponderance of acidity certainly cannot be said to have unqualified merit. In the Frogmore Late Pine we have what the Elton lacks; and the richness of its flavour, coupled with its late and productive bearing, are its great recommendations.

The Frogmore Late Pine was raised by that indefatigable hybridiser of fruits, Mr. Thomas Ingram, gardener to Her Majesty at Frogmore. It was first introduced to notice in 1860, by Mr. Charles Turner, of Slough, and since then it has steadily taken a prominent position in the best gardens.

The fruit is large, varying from conical to cockscomb-shaped, and having the glossy neck of the old Pine, which shows its parentage. The skin is glossy, bright red, with a scarlet shade in it, and the seeds are not deeply imbedded. The flesh is tender, red throughout, and of a fine rich pine flavour.

This variety comes in at the same season as the Elton, but is far superior to it both in flavour and productiveness.



Frogmore Late Pine .

AWARDS OF THE ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEE.

July 7th, 1863.

NEMOPHILA DISCOIDALIS AURICULIFLORA.—Mr. Melville, gardener, Dalmeny Park [C.].—A variety of *N. discoidalis*, with deep mulberry flowers, distinctly and evenly edged with pure white. It was considered an improvement on the variety called *elegans*. Mr. Melville describes it as being of a dwarf spreading habit of growth, flowering very profusely, and having a very showy appearance.

SELAGINELLA INVOLVENS.—Messrs. Veitch & Son, Exeter and Chelsea [F.C.C.].—This had already received a second-class award at the July Show, but was considered worthy a first-class certificate, which was consequently awarded to it. Mr. Veitch reported that this plant (as well as the following) had been known to withstand 15° of frost without the slightest injury. The plant forms a small flat-spreading tuft, with something the character of the species commonly called *S. lepidophylla*, but with the branches more openly branched.

SELAGINELLA INVOLVENS VARIEGATA.—Messrs. Veitch & Son [F.C.C.].—A variety of the foregoing, differing in having the branches and leaves slightly variegated with white.

VERBENA MAUVE QUEEN.—Mr. C. J. Perry, The Cedars, Castle Bromwich [C.].—A distinct and showy variety, with good trusses, the pips of a beautiful mauve lilac, with a pale eye.

July 21st.

ACHIMENES MOOREI.—Mr. A. Parsons, Welwyn [S.C.C.].—A handsome decorative variety, with moderately-large rosy-crimson flowers, slightly fringed at the edges.

CALCEOLARIA BIFOU.—Mr. John Watson, St. Albans [F.C.C.].—This was a dwarf variety somewhat resembling Prince of Orange in habit. The flowers were of a rich velvety deep brown-red colour, produced in great abundance. On this account the plant was considered likely to prove useful for bedding purposes.

HELIPTERUM SANDFORDII.—Mr. W. Thompson, Ipswich [F.C.C.].—This was a dwarf bushy yellow-flowered Everlasting, introduced last year by Mr. Thompson, from Chapman River, West Australia. As a showy free-blooming hardy annual it promised to be a great acquisition. The flower-heads were small, but produced in large masses. Seeds of it were stated to have been first sent to this country by the late Mr. Drummond. Mr. Thompson stated that it was constant, easy to grow, hardy, distinct from other annuals, and quite effective in sunshine.

HOLLYHOCK ALEXANDER SHEARER.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh [F.C.C.].—This was a remarkably fine flower, large and very double, and of a rich deep red colour.

PICOTEE LUCY (Taylor).—Mr. Turner, Slough [F.C.C.].—A charming variety, with finely-formed white petals, delicately pencilled with pale red at the edges.

August 4th.

CLEMATIS JACKMANI.—Messrs. Jackman & Son, Woking [F.C.C.].—This was one of a batch of seedlings raised by Messrs. Jackman, the result of a cross between *C. lanuginosa* and *C. Hendersonii* and *C. viticella atrorubens*, the first being the female parent. They were lovely hardy climbers, with large flowers, which, in the present variety, were of a deep bright violet, and consisted of a variable number of from four to six sepals. It was considered quite an acquisition. The plants flower from July onwards till the autumn.

CLEMATIS RUBRO-VIOLOCEA.—Messrs. Jackman & Son [F.C.C.].—This was from the same batch of seedlings as the foregoing, and differed chiefly in its intense reddish-violet flowers, which were remarkable for the rich velvety appearance of the surface of the sepals.

DAHLIA ALEXANDRA.—Mr. C. J. Perry, Castle Bromwich [S.C.C.].—A very pleasing flower, both in respect to colouring and form. The colour is white, delicately tipped with lilac.

DAHLIA JOHN WYATT.—Mr. Keynes [S.C.C.].—A neatly-formed full flower, of a deep rose purple.

HOLLYHOCK CHERUB.—Mr. W. Chater, Saffron Walden [S.C.C.].—A moderate-sized full flower, of a salmon pink colour.

HOLLYHOCK MRS. M. BINNING.—Messrs. Downie & Co. [F.C.C.].—A fine deep rose, the flowers large, full, and regularly built.

HOLLYHOCK R. B. ULLER.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh [F.C.C.].—A fine large crimson, with the flowers full, even, and compact.

HYMENOSTACHYS ELEGANS.—Mr. Bull, Chelsea [F.C.C.].—A handsome tropical Film-Fern, with dimorphous pellucid fronds; the sterile ones pinnatifid or pinnate, with the veins anastomosing, and the fertile ones narrow linear-elongate, with the cup-like involucres sunk side by side along both edges.

PELARGONIUM LADY COWPER.—Mr. Francis, Hertford [S.C.C.].—A very dwarf compact scarlet, with green leaves.

PELARGONIUM (Nosegay) STELLA VARIEGATED.—Mr. G. Smith, Hornsey Road [C.].—A fine variety, having all the qualities of the beautiful variety from which it sported, except the green foliage, which is replaced by leaves having a green centre, and a broad creamy edge.

PICOTEÉ EXHIBITION.—Mr. R. Elkington, Buckingham [C.].—A showy heavy-edged red, pure and without bars, and likely to prove a flower of the useful class.

August 11th.

PELARGONIUM LORD OF THE ISLES.—Mr. G. Smith, Hornsey Road [F.C.C.].—A variety of moderate vigour, with slightly zonate leaves, and rosy scarlet flowers of fine shape, large, and in good bold trusses.

August 25th.

CYRTANTHUS SANGUINEUS.—Messrs. Backhouse & Son, York [F.C.C.].—A beautiful amaryllidaceous plant, of which the bulbs that produced the plants exhibited had been imported from Caffraria in the autumn of 1862. It was, however, originally introduced by the same eminent nurserymen in 1846, and was presented by them to the Society, in whose *Journal* it was published by Dr. Lindley, under the name of *Gastronema sanguineum*. It produces linear spatulate or lanceolate leaves, and short scapes 3 to 4 inches long, bearing a large solitary funnel-shaped flower, of a bright orange red, with the perianth segments recurved. Messrs. Backhouse remark that they are led to conclude the plant will prove hardy, its habitat being closely analogous to that of *Gladiolus psittacinus*.

DAHLIA ANNA KEYNES.—Mr. Keynes [S.C.C.].—A large, full, high flower, white, delicately tipped with lilac.

DAHLIA CORONET.—Mr. Wheeler, Warminster [S.C.C.].—A full violet purple variety.

DAHLIA CRIMSON PERFECTION.—Mr. Legge [C.].—A small deep ruby crimson.

DAHLIA EARL OF PEMBROKE.—Mr. Keynes [F.C.C.].—A high-built well-formed claret purple.

DAHLIA FANNY PURCHASE.—Mr. Keynes, Salisbury [F.C.C.].—A neatly-formed symmetrical bright yellow, likely to prove a very useful flower.

DAHLIA FORMIDABLE.—Mr. H. Legge [S.C.C.].—Red, tipped with white.

DAHLIA NONSUCH.—Mr. Legge [C.].—A medium-sized golden amber, rather quilled.

DAHLIA REGULARITY.—Mr. Keynes [S.C.C.].—A variable sort, bluish white, heavily striped with crimson, but sometimes much more slightly marked.

DAHLIA SURETY.—Mr. Keynes [S.C.C.].—Shaded fawn colour.

DAHLIA SYMMETRY.—Mr. Wheeler [C.].—A dark ruby red.

DAHLIA THE BRIDE.—Mr. H. Legge, Edmonton [S.C.C.].—A pale French white, tipped at back with purple.

HOLLYHOCK ACME.—Mr. W. Chater, Saffron Walden [F.C.C.].—Peach-coloured, fine.

HOLLYHOCK THE QUEEN.—Messrs. Downie, Laird, & Laing, Sydenham and Edinburgh [S.C.C.].—A handsome variety, with bluish white flowers.

HOLLYHOCK VOLUNTEER.—Mr. Bird Porter, Copt Hall, Epping [S.C.C.].—Flowers dark claret.

HOLLYHOCK WILLINGHAM DEFIANCE.—The Rev. E. Hawke, Willingham Rectory, Gainsborough [S.C.C.].—Flowers bright rose.

LILIUM NEILGHERRENSE.—Messrs. Veitch & Son, Exeter and Chelsea [S.C.C.].—An Indian Lily, with one-flowered stems in the way of *L. caximium*, producing large, long-tubed, horizontal flowers of a yellowish or greenish-white, and very sweetly scented.

PELARGONIUM (Variegated) MRS. BENYON.—Messrs. E. G. Henderson & Son, St. John's Wood [F.C.C.].—A variety considered to be excellent for bedding purposes. It is in the style of Mrs. Pollock, of dwarf, free, vigorous growth, with large effective foliage, and flowering more abundantly than any other variegated variety except Brilliant. The flowers are scarlet. The plant was accompanied by a group of seedling Pelargoniums.

VALLOTA PURPUREA EXIMA.—Mr. Bull, Chelsea [Special].—A group of three well-managed plants of a fine variety of this very beautiful bulb, which was equal in merit to the variety called major, but was said to differ in having a distinct pale centre. It is remarkable for its dwarf and more compact habit. It is also much more free in flowering, always throwing two or three spikes where the other throws but one.

September 9th.

ADIANTUM CARDIOCHLÆNUM.—Mr. Bull, [F.C.C.].—One of the most beautiful of the tender Maiden-hair Ferns, and tolerably well known in all good collections, but deserving of universal introduction, and on this account (not having been before the Committee) it received an award. The stipes are black and polished, and the fronds large, spreading, and tripinnate, the pinnules being obtusely oblong, almost parallelogramoid, and elegantly lobato-crenate.

ANEMONE JAPONICA HONORINE JOBERT.—Messrs. F. & A. Smith, Dulwich [C.]—A hardy perennial of stout, robust, dwarfish habit, with bold, ternate, coarsely-toothed leaves, and pure white flowers, a good deal like those of *A. vitifolia*. It was considered a good late-blooming hardy border plant.

CATLEYA EXONIENSIS.—Messrs. Veitch & Son, Exeter and Chelsea [S.C.C.]—One of the very interesting hybrid Orchids raised at Messrs. Veitch's Exeter nursery by the skill of Mr. Downing. The present, a very beautiful flower, was obtained between *Catleya Mossiae* and *Laelia purpurata*. The plant was of dwarf, compact, vigorous-looking habit. The award was made for its interest as a hybrid. The flowers were moderate-sized, bluish white, acuminate, somewhat reflexed sepals and petals, and a lip, of which the lower half the tube-like portion was yellow, and the upper half rich rose purple, the margin being filled, and with just a wire-edge of white. This promises to be a fine thing.

CENTAUREA ARGENTEA.—Messrs. E. G. Henderson & Son, St. John's Wood [F.C.C.]—This very ornamental silvery-leaved perennial had already, in competition with other plants, received a small award at one of the summer Shows, but was thought to be so meritorious in its class as to deserve the higher certificate. It is noticed at page 284.

CIONIDIUM MOOREI.—Mr. W. Dean, Bradford Nursery, Shipley [F.C.C.]—This very interesting Fern is a native of New Caledonia, and is related to *Deparia*, from which it differs in its reticulated venation. It is sometimes called *Deparia Moorei* and *Trichiocarpa Moorei*. It is a plant of moderate size, with pedately bipinnate-pinnatifid fronds, springing from a short decumbent caudex. These fronds are broadish, in three parts, something like small examples of *Aspidium trifoliatum*, but they have a very different appearance in consequence of the numerous spore-cases, which are contained in shallow cups, projected from the margin on little footstalks.

DAHLIA ANNA KEYNES.—Mr. Keynes, Salisbury [F.C.C.]—A very pleasing variety, of full size and good form; the colour bluish white, deeper in the outer florets, and very faintly tipped with lilac.

DAHLIA ANNIE.—Mr. Collier, Bethnal Green Road [S.C.C.]—A shaded maroon crimson, tipped with white.

DAHLIA BRUNETTE.—Mr. Hopkins, Brentford [S.C.C.]—A very attractive variety, of good properties, and of a bright apricot colour, very heavily laced with deep carmine crimson. The most attractive flower, perhaps, of the season.

DAHLIA CHELSEA HERO.—Mr. Burgess, Chelsea [S.C.C.]—A well-formed variety, the colour of which may be described as fawn tinged with peachy-lilac.

DAHLIA CORONER.—Mr. Wheeler, Warminster [F.C.C.]—A useful purple violet variety, of deep outline and full.

DAHLIA ENCHANTRESS.—Mr. Legge [S.C.C.]—A pleasing variety, of good properties, pale apricot, tipped with rosy carmine.

DAHLIA GARIBALDI.—Messrs. Bragg & Co., Slough [S.C.C.]—An orange red, of fair quality.

(To be continued.)

OBITUARY.

MR. DONALD BEATON.

THERE are few men who have held a higher position in horticulture, or who have done more to advance that science, than Mr. Donald Beaton, who is now removed from the midst of us. It is with every feeling of regret that we have to announce that his death took place at his residence in Surbiton, Kingston-on-Thames, on the evening of Saturday, the 31st of October last. Some months previous to his last illness Mr. Beaton was seized with what has proved to be an attack of paralysis; but it was of such a nature as not to incapacitate him from attending to his everyday duties, although it so impaired the functions of the brain as to compel him to desist from all literary pursuits. From the singular way in which this attack affected Mr. Beaton's memory, his otherwise active and vigorous mind was not allowed that scope necessary for him to convey his ideas.

Mr. Beaton was born at Strathconon, in the parish of Urray, Ross-shire, on the 8th of March, 1802, and was consequently in the 61st year of his age. He was buried in the churchyard of Surbiton.

CALENDAR OF OPERATIONS.

CONSERVATORY.

SPAKE no pains to have this house as gay and inviting as possible; it will then be much enjoyed at the present season, when there is so little in the way of flowers out of doors. The following plants will help to make a display:—*Epacris*, *Heaths*, *Camellias*,

Indian Azaleas (the early varieties of them will now be coming into flower, if they have been in a little heat), Primulas, Cinerarias, &c. Add to these Heliotropes, Mignonette, Violets, Tulips, Narcissus, &c.; also a few variegated and ornamental foliage plants. See that every plant and pot is clean and neat, and arrange the whole in an effective manner. Attend carefully to the watering of all plants. Fire heat at night will be necessary in frosty weather; but in open mild weather it is best to light a little occasionally by day to expel damp. Ventilate freely on all favourable occasions, but guard carefully against cold draughts.

GREENHOUSES.

HARDWOODED PLANTS.—Look frequently over the specimen plants; turn them around and change their situations occasionally. If not already done tie and train any plants that may require it. Attend carefully to the watering of all plants. Give air freely whenever the state of the weather permits. Use fire heat only when necessary. Young plants in pits should be well protected from frost, but in favourable weather they should have all the air possible. **SOFT-WOODED PLANTS.**—*Pelargoniums*.—Look carefully into the plants and remove all decaying and superfluous shoots and leaves. Keep the plants well tied-out, so that the sun and light might have free access to the centre of them. Keep them near the glass, to prevent their drawing. Great care should be taken in watering. At this season they should be allowed to get quite dry before they are watered. In frosty weather fires will be necessary at night. In dull weather light fires occasionally in the daytime, to dry up the damp whilst the sashes are open. Ventilate freely at every favourable opportunity, taking care to guard against cold draughts as much as possible. *Cinerarias*.—Attend regularly to the tying-down of the shoots as they advance, and thin-out all the small leaves. Attend carefully to the watering. Ventilate freely in fine weather. *Calceolarias*.—Attend carefully to these. Remove all decaying and small leaves and shoots. Stir the surface of the soil in the pots to keep it open. Attend well to the watering, never allowing them to get thoroughly dry before it is given to them. Fumigate occasionally to prevent the green fly, and give air freely at every favourable opportunity. Pot-off seedlings when fit, and shift those previously potted into larger pots. *Fuchsias*.—Those started last month should now have a moist growing atmosphere, and the temperature at night should not be below 50°. Tie-up the young plants as they advance in growth. Give a little air in fine weather. Water freely when necessary.

STOVE.

Examine the plants frequently, and spare no pains to have them thoroughly clean and free of insects. Arrange the flowering and fine-foliaged plants, so that they may make the house gay and cheerful. Pick off all decaying flowers and leaves. Tie and train plants. Keep the house dry and clean. Water thoroughly when it is wanted; always give it in the forenoon. As long as the present mild weather continues a great amount of fire heat will not be required; the night temperature should not, however, be allowed to get below 60°. Give air freely in fine weather, avoiding cold draughts.

FLOWER GARDEN.

Cover beds containing bulbs to protect from frost. Protect all choice flowers and shrubs that are likely to suffer from frost. If not already done, plant hardy Roses in open weather. This is also a good time to plant stocks for budding next season. Plant edgings, lay turf, and push on alterations of all kinds in open weather. Look frequently over the stock of "bedding" plants. Those in pits and frames should be well protected from frosts, but should have all the air possible when the weather permits. *Pleasure Grounds*.—Secure newly-planted trees to stakes, to prevent their being blown about by the wind; indeed many of the established trees would be much benefited if some of the branches on the side exposed to the wind were made fast to stakes; it prevents them

from dashing against each other, and saves the buds from being rubbed out, which often happens when not staked. Continue to plant in open weather. Proceed with alterations whilst the weather continues favourable.

FORCING.

FRUIT.—*Pine Apples*.—The directions given last month, for plants to start in January, are applicable this. The fruiting-house will require careful management at this season. Take advantage of the weather to give a little air at every favourable opportunity. Water thoroughly when required. Keep the atmosphere rather dry, and maintain a temperature of from 60° to 65° at night, and 80° to 85° during the day. Keep the succession plants dry; give air every favourable opportunity, and see the bottom heat is not below 80°. *Vines*.—Gradually raise the temperature of the early-house to 60° by night, and 70° by day, with an increase of 12° or 14° by sun heat. Attend to the stopping and tying-down of the shoots, and remove all superfluous ones. Give air freely when the weather permits. Water thoroughly the inside borders when they require it, using tepid water. Keep the atmosphere of the succession-houses moist. Give air freely, and be careful not to keep the night temperature above 50° until the buds begin to swell. *Late Grapes*.—Examine the bunches frequently, and take out all decaying berries. Give abundance of air, and keep the houses as dry as possible. *Peaches and Nectarines*.—If not already done, start the early-house at once. Cover the outside borders with fermenting material, and give the inside ones a good soaking of water. Syringe the trees two or three times daily, and try to keep a moist atmosphere by all means. Maintain a temperature of from 40° to 45° by night, and 55° to 60° by day. Give air freely when the state of the weather permits. In mild weather the late houses should have all the air possible; but in frosty weather it is better to close the sashes. *Figs*.—If these have not been pruned and dressed, as recommended last month, the present is a good time to do it; also to shift any plants that may require a larger pot or tub. In mild weather give plenty of air, and in severe weather use sufficient fire to keep out the frost. *Cherries*.—The early batch of plants should now be under glass. Give them all the air possible. *Strawberries*.—Introduce the first batch for forcing. At this season they cannot have too much light; they should therefore be put close to the glass. They should have little or no fire heat except in frosty weather. Give them plenty of air. Take care the plants in winter quarters do not get frozen on any account. *Cucumbers*.—As long as the weather continues mild, be sparing of fire heat at night. If cold frosty weather should set in it will be necessary to keep a temperature of 60 to 65° by night, and 70° to 80° by day. Keep the shoots thin, so that they may get all the light possible. Keep a moist atmosphere. Give air freely at every opportunity, and water thoroughly when required.

HARDY FRUIT.

Proceed with the pruning and nailing of wall trees in mild weather, and the pruning and thinning-out of all kinds of standard and dwarf trees, and endeavour to get through as much of this work as possible at this season. Plant fruit trees of all kinds in open weather, and attend to the instructions on this head in last month's Calendar. Look the fruit carefully over in the fruit room.

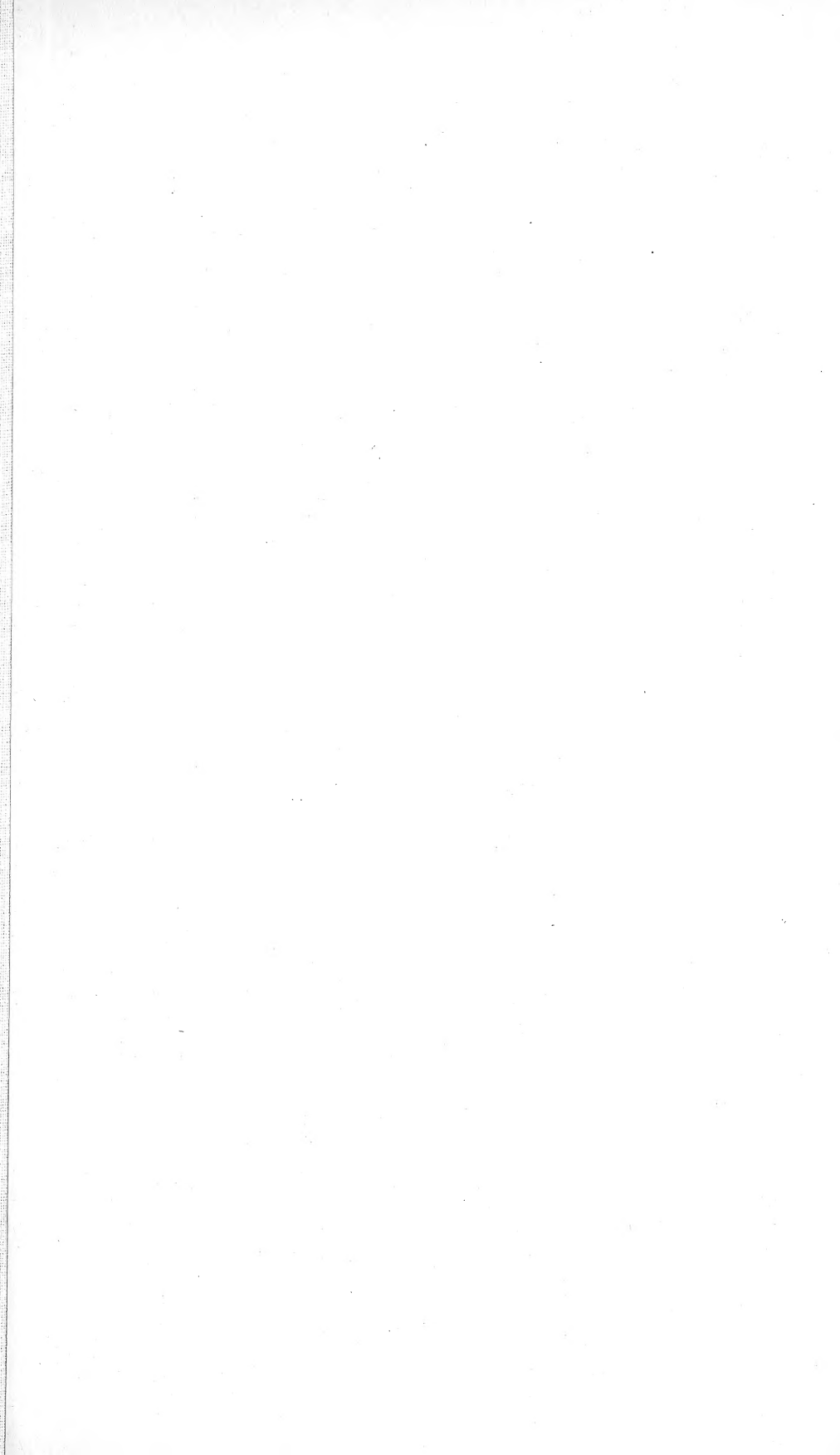
KITCHEN GARDEN.

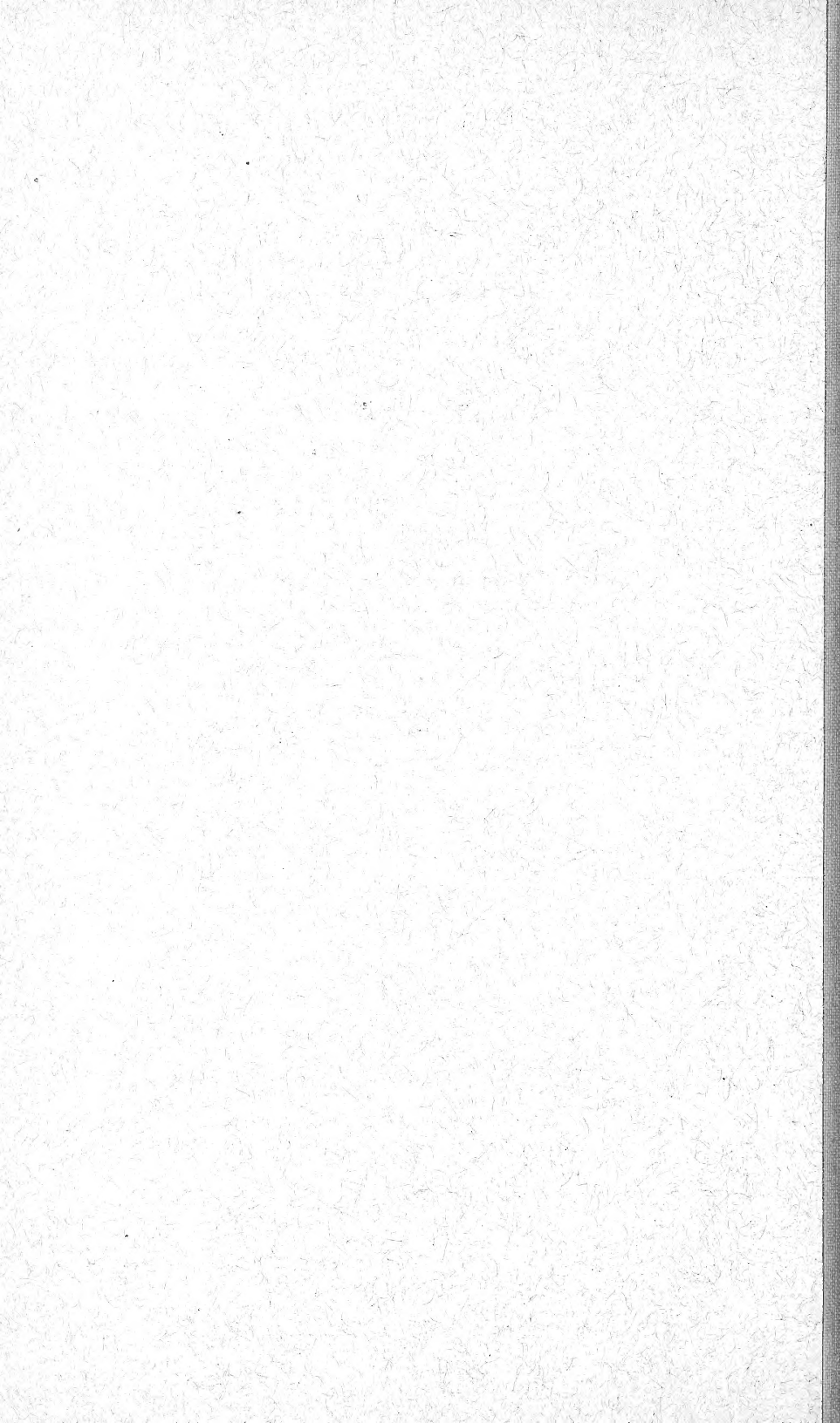
See that everything is properly protected that is likely to suffer from the influence of frost; for though the weather up to the present time has been very mild, we may have a very sudden change to very severe weather. It is prudent, therefore, to take all precaution at this season against such changes. Parsley, Lettuce, Endive, Cauliflowers, Celery, &c., all require protection in case of frost. See there is a sufficient quantity of Rhubarb and Sea-kale covered for forcing. Thoroughly clean all parts of the garden. In frosty weather wheel manure to places where it will be wanted. In mild weather dig or trench all vacant ground. Dig all borders. Plant edgings, turn gravel, and sweep and roll walks.—M. S.

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